InterExcel400 Manual

version 2012

InterExcel400™

eForms & Intelligent Document Management for System i, i5, iSeries & AS/400

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How to upgrade/install InterExcel400

Upgrading InterExcel400

If you already have installed InterExcel400 and want to upgrade to a newer version, then you will first need to go through the steps below:

If you are running InterExcel400 version 001144 or newer you will first need to end the web server and end journaling. This is done by entering InterExcel400 with the command INTERXEL/INTERXEL, select '80. Administration' followed by '17. Prepare for upgrade/rename of library' and select: '1: Prepare for upgrade - do the above.'

Next you should rename the existing INTERXEL library to e.g. INTERXELOL, do a normal installation (as described below) and after the installation you enter the new INTERXEL library with the command INTERXEL/INTERXEL and select option '80. Administration' followed by '14. Upgrade InterExcel400 (Copy resources from old)'. Now confirm the copy and state the name of the old library e.g. INTERXELOL.

Installing InterExcel400

InterExcel400 is delivered as a zipped save file. Use e.g. Winzip to extract the Interxel.savf file from the interxel.zip file. Here are 2 ways to restore the INTERXEL library, that is inside the save file onto your System i:

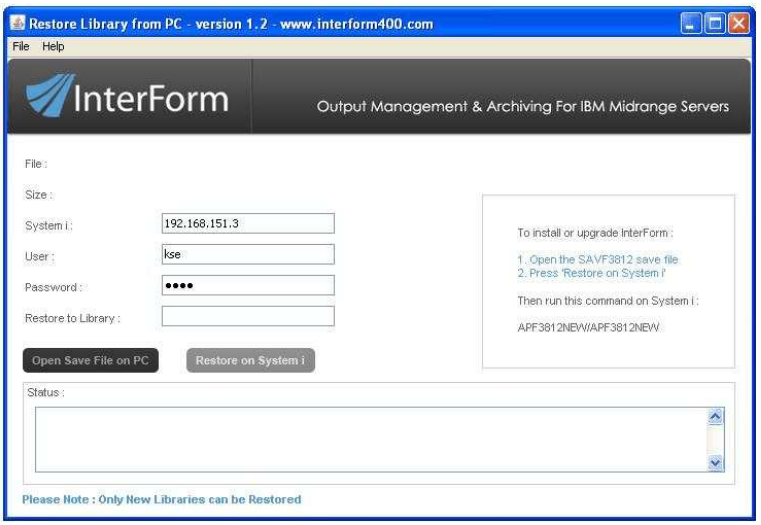
1. Restore InterExcel400 library by use of RSTLIBPC

You can restore the INTERXEL library via the PC tool, that is included in the distribution.

This requires that Java Runtime Environment is installed on the PC. That is required in order to be able to convert spooled files to formatted excel files interactively anyway. If this is missing you can download the latest version from here:
http://java.com/en/download/manual.jsp

Just unzip all the files in the distributed zip file into the same directory and then do this:

1) Double click on the RSTLIBPC.bat file. This will start a DOS window and shortly after this:


Restore Library from PC - version 1.2 - www.interform400.com
File Help
InterForm
Output Management & Archiving For IBM Midrange Servers
File :
Size :
System i :
192.168.151.3
User :
kse
Password :
Restore to Library :
Open Save File on PC
Restore on System i
To install or upgrade InterForm :
1. Open the SAVF3812 save file
2. Press 'Restore on System i'
Then run this command on System i :
APF3812NEW/APF3812NEW
Status :
Please Note : Only New Libraries can be Restored

2) State the identification (probably IP-address) of your System i, your user id and your password for the System i, click on ‘Open Save File on PC’ and select the INTERXEL.SAVF file.

3) If you want to restore the INTERXEL library into INTERXEL (and you probably will) you can keep the field ‘Restore to Library’ blank - if not state the library you want to restore to.

4) Finally click ‘Restore on System i‘ to start restoring the INTERXEL library.

Now continue by restoring the interXEL directory as described below.

2. Alternative: Restore the InterExcel400 library with FTP

Use this description to restore the INTERXEL library if the description above cannot be used.

For restoring the InterExcel library with FTP you first place the interxel.savf file not too far from the root of a drive on your PC then do this:

(The order of the actual ftp commands is important..)

1. Open a DOS session on your PC
2. Type **ftp** followed by the ip address of your as400, type your user profile and password when prompted.
3. Type **lcd c:\temp** (or wherever you have placed the interxel.savf file.
4. Type **cd qgpl** to temporarily place the save file in the qgpl library.
5. Type **bin** to change to binary transfer.
6. Type **quote site namefmt 1**. (Response should be: ‘Now using naming format “1"’).
7. Transfer the file with **put interxel.savf**
8. Type **quit** to exit the ftp session.

If this transfer should create a PF file on the host instead of a SAVF you should create the save file on the host before retrying the transfer. You create the save file with this command: *CRTSAVF FILE(QGPL/INTERXEL)*

When the transfer is done you restore the interxel library with the command:

*RSTLIB SAVLIB(INTERXEL) DEV(*SAVF) SAVF(QGPL/INTERXEL)*

After that you can delete the temporary save file:

DLTF QGPL/INTERXEL

Now continue by restoring the interXEL directory as described below.

Restore of the InterXEL directory

Inside the **interxel** library you can find a save file named **XELIFS**. This contains a saved **interxel** directory and subdirectories. Restore the interxel directory with this command:

RST DEV('/qsys.lib/interxel.lib/xelifs.file') OBJ(('/interxel'))

That completes the installation of InterExcel400. Now proceed with '**Configuring InterExcel400**' below.

Installation on PCs

To use the full potential of InterExcel400 you need to setup the PCs that are going to interactively select a spooled file and view it as an excel spreadsheet.

A way to do this is to run the command **INTERXEL/INTERXEL** and select option '*30. Install PC tools*'. This will list the things to do (listed below).

1), 2) and 3) only need to be done once for the whole machine.

1. Make sure that there is an INTERXEL directory on the iSeries. If there is none you can restore it with:
   RST DEV(/qsys.lib/interxel.lib/xelifs.file) OBJ((/interxel))

2. Make sure that you have typed in the IP-address (or name) of the iSeries in option: 12. Configuration of InterExcel400 on the InterExcel400 main menu.

3. Add a share on the iSeries of /INTERXEL with the name of INTERXEL. If you are running InterForm400 you can do that with the command:
   APF3812/ADDFILSHR SHARE(INTERXEL) OBJ(/interxel) TEXT(INTERXEL)

4. Map a Network drive on the PC in question to INTERXEL using the name of the iSeries stated in 12.Configuration of InterExcel400. You do that in the MS Explorer on the PC.

5. Install Java Runtime Environment (JRE) on the PC. Download from:
   (http://java.sun.com/javase/downloads/index.jsp)

6. Copy the INTERXEL directory from the iSeries onto the C-drive. This can be done via the INTERXEL/INTERXEL command and option '**30. Install PC tools**'.

When you press ENTER it will copy the INTERXEL directory onto the PC. It will start a DOS session and it should look like this for a successful execution:

```
\\192.168.151.3\interxel\system\LICENSE
\\192.168.151.3\interxel\system\PCinstall.bat
\\192.168.151.3\interxel\system\QSHELL_output
\\192.168.151.3\interxel\system\dummy.txt
\\192.168.151.3\interxel\system\iXEL001V106.jar
\\192.168.151.3\interxel\system\ixel.bat
\\192.168.151.3\interxel\system\ixel1001106.bat
\\192.168.151.3\interxel\system\ixel2.bat
\\192.168.151.3\interxel\system\ixel3.bat
\\192.168.151.3\interxel\system\poi.jar
\\192.168.151.3\interxel\system\poi3.jar
\\192.168.151.3\interxel\system\xelSTY.TXT
\\192.168.151.3\interxel\system\xelfnt.TXT
\\192.168.151.3\interxel\system\ixel1001106DB.bat
\\192.168.151.3\interxel\system\ixel1001107.bat
\\192.168.151.3\interxel\system\ixel3001.bat
\\192.168.151.3\interxel\system\ixel2001.bat
\\192.168.151.3\interxel\system\ixel1001107DB.bat
       18 file(s) copied.

Press any key to return
```

If the files are not copied you should go through the list above again. Refer to page 11 for information of how to setup a share and mapping a network drive.

You also need to have Java Runtime Environment Version 1.3 or later installed. If you

already are able to run the InterForm400 graphical designer on the same PC you have it installed. You can download it for free from this site:

http://java.sun.com/javase/downloads/index.jsp

(Scroll down to find link to download only Java Runtime Environment.)

Configuring InterExcel400

To configure InterExcel400 you execute this command: *INTERXEL/INTERXEL*.

The first time you enter this command you may see the screen below:

```
                 Create WEBINTER user profile

In order to use the InterExcel400 web server a special user profile is needed.

The user profile WEBINTER must exist in order to run the web server.
It is found, that this user profile does not exist, so it will now be created.
Press ENTER to create the user profile now.

(The user profile is created with a random password)









 F3=Exit        ENTER=Create the WEBINTER user profile         F12=Cancel
```

The user profile WEBINTER is needed for running the web server. Press Enter to let InterExcel400 create it or press F3/F12 to ignore this. Please notice that a random (not blank) password is needed. If the WEBINTER user exists, then this screen is not shown.

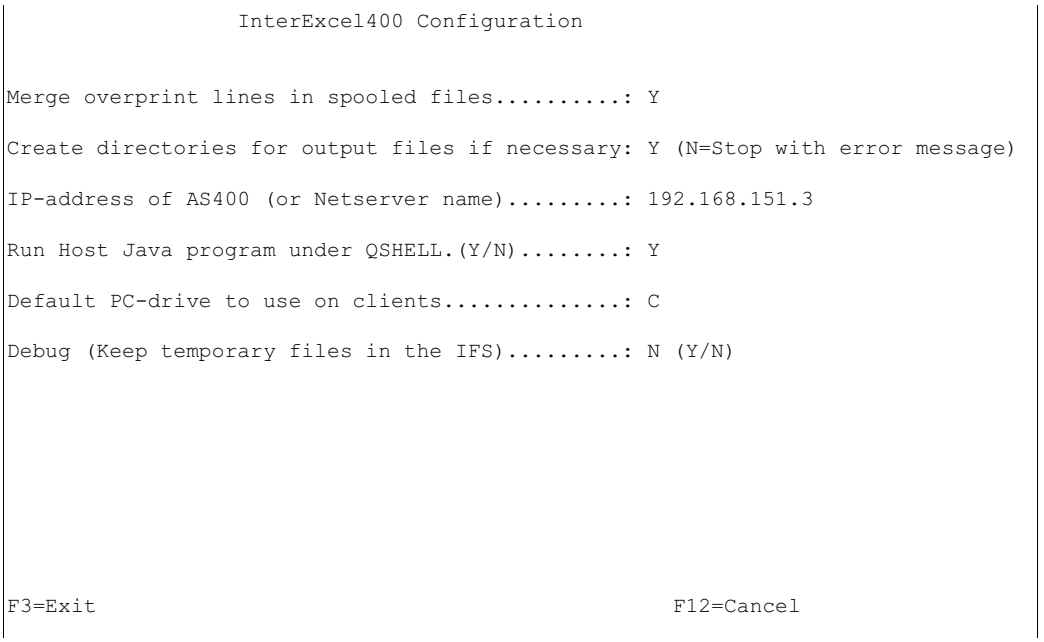
You will then see the InterExcel400 Main Menu:

```
 www.InterExcel400.com         Main Menu                  Version: 001133

   Select an option:

   1. Work with fonts
   2. Work with Cell styles
   3. Work with Conversion definitions
   4. Work with spooled files           (WRKSPLFXEL)
   5. Work with an output queue         (WRKOUTQXEL)
   6. Open a spooled file in Excel      (SPL2XEL)
   7. Install PC tools

   9. Output queue to use


  80. Administration

  90. Sign off

Selection:


F3=Exit                                            F12=Cancel
Copyright of InterForm A/S  2008          www.interform400.com
```

(You do not need to add the INTERXEL library to your library list.) Adding the INTERXEL library to the system library list is not recommended as this may cause problems with future upgrades.

If the license code have run out or is invalid you will get a warning when entering the command.

Now enter option '**80. Administration**' followed by '**12.Configuration of InterExcel400**':


InterExcel400 Configuration
Merge overprint lines in spooled files.....: Y
Create directories for output files if necessary: Y (N=Stop with error message)
IP-address of AS400 (or Netserver name).....: 192.168.151.3
Run Host Java program under QSHELL.(Y/N).....: Y
Default PC-drive to use on clients.....: C
Debug (Keep temporary files in the IFS).....: N (Y/N)
F3=Exit
F12=Cancel

Change the options to fit your installation:

Merge overprint lines in spooled files
This option is default activated and should be left like this, if you are in doubt if there are any spooled files (to be handled by InterExcel400), that are using overprinting (e.g. for printing in bold). InterExcel400 will not handle spooled files using overprinting correctly if this is disabled.

Create directories for output files if necessary
When you setup InterExcel400 to create Excel spreadsheets in the IFS (e.g. by using variables in the path) you would perhaps want InterExcel any directory need to fit the path specified. If you want to restrict InterExcel400 from creating directories state '**N**'

IP-address of AS400 (or Netserver name)
InterExcel400 can startup a PC application to view a marked spooled file as e.g. an Excel spreadsheet from the INTERXEL/WRKOUTQXEL command. In order to do so you need here to type the identification of the iSeries as seen from the PC. The IP-address can be used in most cases. Do not type any delimiters around the IP-address.

Run Host Java program under QSHELL
If you convert spooled files to excel via the command interxel/spl2xel (e.g. in batch), then InterExcel400 will normally run the java program under QSHELL. If this is a problem you can change the default 'Y' into 'N'.

Default PC-drive to use on clients
Default InterExcel400 will use the C-drive on the local PCs. If you want to use a different drive for all users you can insert it here. Alternatively you can state it per user on the user setup.

Debug (Keep temporary files in the IFS)
If InterExcel400 does not react as you expect it can be an idea to temporarily change this into 'Y' (you may be asked to do so from your local support). This will leave any temporary files in the IFS and QTEMP and run a special bat file for conversion so you can view the process of the used bat file. Remember to change this to 'N' when done to avoid excessive disk usage.

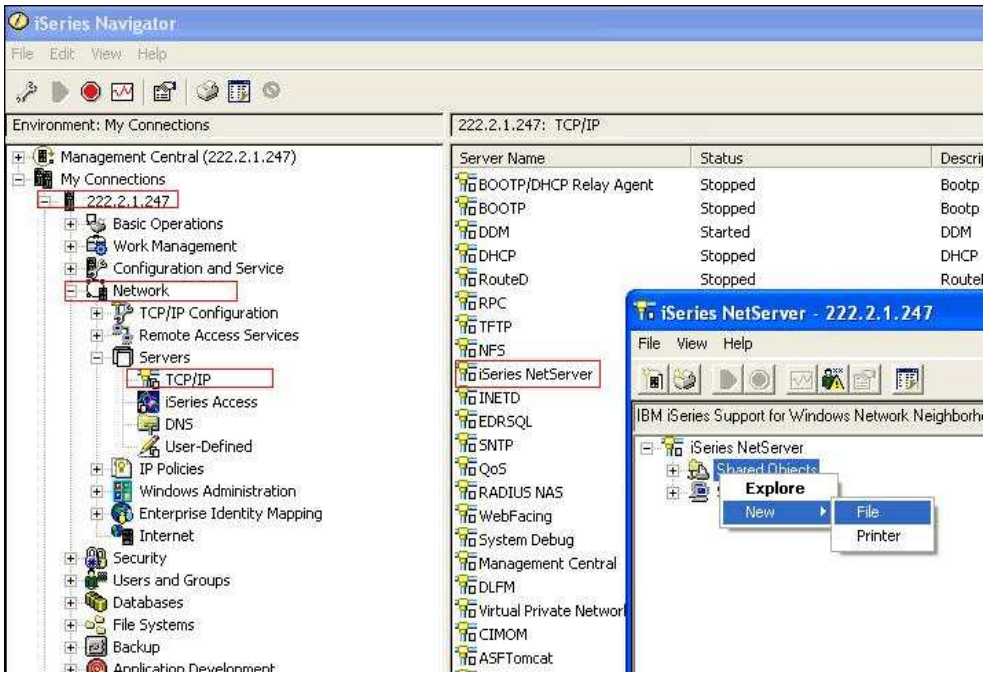
Please refer to Appendix A on page 42 for details of setting up the integrated web server.

Sharing the InterXEL directory

In order to make it possible to convert and view spooled files directly from the WRKOUTQXEL command you need to share the interxel directly as the temporary files for that is placed in /interxel/temp.

If you are running InterForm400 you can share the interxel directory with this command:
APF3812/ADDFILSHR SHARE(INTERXEL) OBJ('/interxel') TEXT('Interxel directory')

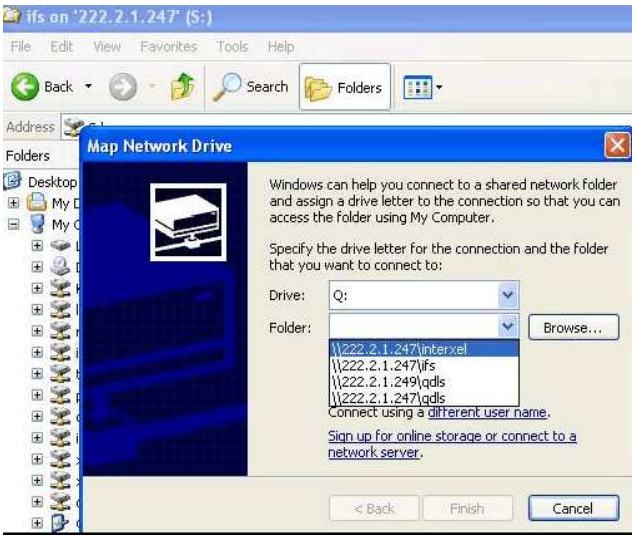
Alternatively you can share it via iSeries Navigator like this:



(Left click on the machine, **Network**, **TCP/IP**. Then double click on **iSeries Netserver** and right click on **Shared object** and select **New**, '**File**'.)

Use **interxel** as Share name and **/interxel** as Path name.

After you have made a share it is a VERY good idea to map a network drive (In MS Explorer) to this share to make sure, that you have access:


ifs on '222.2.1.247' (S:)
File Edit View Favorites Tools Help
Back Search Folders
Address
Folders
Desktop
Map Network Drive
Windows can help you connect to a shared network folder and assign a drive letter to the connection so that you can access the folder using My Computer.
Specify the drive letter for the connection and the folder that you want to connect to:
Drive: Q:
Folder:
Browse...
\\222.2.1.247\interxel
\\222.2.1.247\ifs
\\222.2.1.249\qdls
\\222.2.1.247\qdls
Connect using a different user name.
Sign up for online storage or connect to a network server.
< Back
Finish
Cancel

(Select **Tools** and **Map Network drive** to do that.)

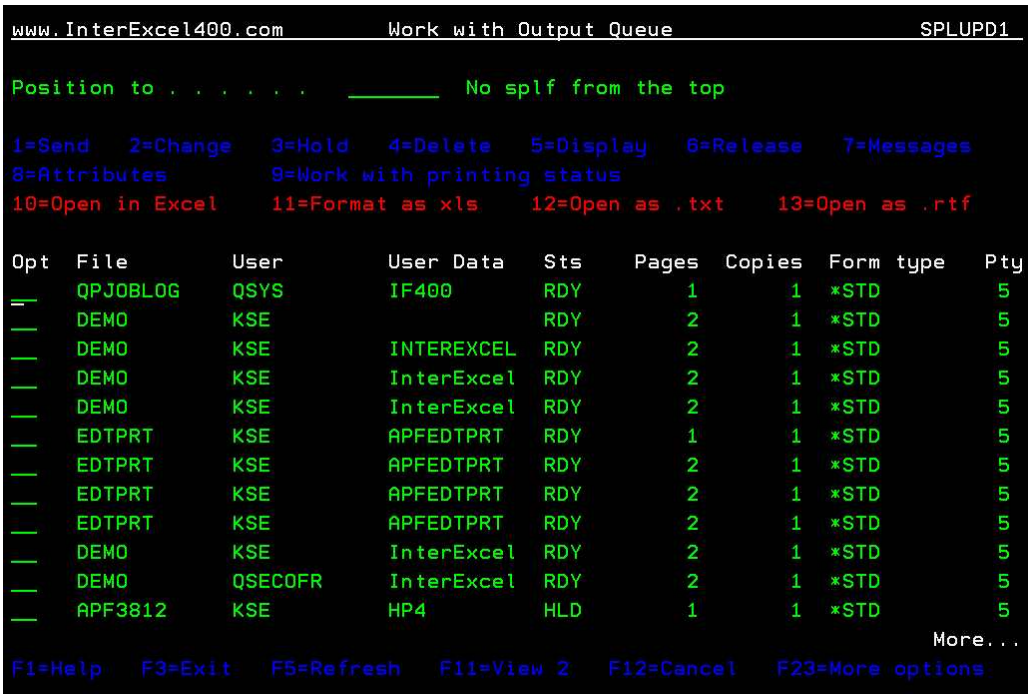
Initial testing/running the first time

After a first time installation you might want to test, that InterExcel400 is running OK and you have setup it up correctly.

To help you to do that InterExcel400 is delivered with a demo spooled file and a demo setup, that fits with the spooled file.

Go to the InterExcel400 Main Menu with the command **interxel/interxel** and select **80. Administration** and then **13. Restore InterExcel400 demo spooled file**. Select an output queue where to place the spooled file and press Enter:

You can now view the restored spooled file. Try the command **INTERXEL/WRKOUTQXEL** and use the output queue as argument - or use option **5. Work with an output queue** on the InterExcel400 Main Menu:


www.InterExcel400.com Work with Output Queue SPLUPD1
Position to . . . . . No splf from the top
1=Send 2=Change 3=Hold 4=Delete 5=Display 6=Release 7=Messages
8=Attributes 9=Work with printing status
10=Open in Excel 11=Format as xls 12=Open as .txt 13=Open as .rtf
Opt File User User Data Sts Pages Copies Form type Pty
QPJOBLOG QSYS IF400 RDY 1 1 *STD 5
DEMO KSE RDY 2 1 *STD 5
DEMO KSE INTEREXCEL RDY 2 1 *STD 5
DEMO KSE InterExcel RDY 2 1 *STD 5
DEMO KSE InterExcel RDY 2 1 *STD 5
EDTPRT KSE APFEDTPRT RDY 1 1 *STD 5
EDTPRT KSE APFEDTPRT RDY 2 1 *STD 5
EDTPRT KSE APFEDTPRT RDY 2 1 *STD 5
EDTPRT KSE APFEDTPRT RDY 2 1 *STD 5
DEMO KSE InterExcel RDY 2 1 *STD 5
DEMO QSECOFR InterExcel RDY 2 1 *STD 5
APF3812 KSE HP4 HLD 1 1 *STD 5
More...
F1=Help F3=Exit F5=Refresh F11=View 2 F12=Cancel F23=More options

The spooled file is named **DEMO** with the user data **InterExcel**. Now first try option 10, 12 and 13 for this spooled file. These options will convert the *SCS spooled file into a PC file and start up an application to show you the result. If this works you have a confirmation, that InterExcel400 can communicate with your PC.

You can try options 10, 12 and 13 for any *SCS spooled file.

Next try option **11=Format as xls** for the DEMO spooled file only. This will look into a demo setup (shipped with InterExcel400) to determine how to format the spooled file when converting it into an Excel spreadsheet and then open the converted spreadsheet.

This takes longer the first time as there are some initial files to be converted.

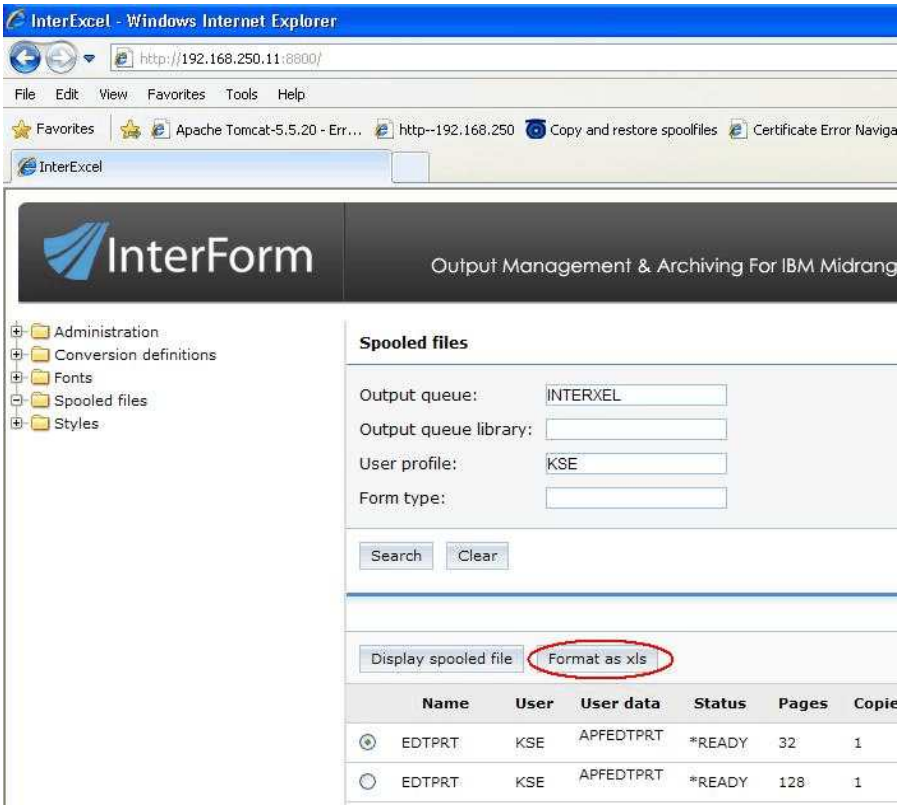
If you work a lot in the green screen InterExcel400 Menu you can set your preferred output queue via option ‘9. Output queue to use’. Here you state your personal output queue and this will from now on be suggested when you select option 4 and 5 on the InterExcel400 Main Menu.

The final Excel spreadsheet should look like this:

	A	B	C	D	E	F	G	H	I	J	K	L
1		**Sales Report - Rubber Band Inc.**										
2		**Department: Remote Monitoring**										
3					**User:**	Smith	**Date:**	16.10.2006				
4					**Period:**	4th Quarter	**Time:**	14:20:55				
5		**Sales Rep.**	**Art**	**Description**	**Quantity**	**Unit Price**	**Discount**	**Total Price**				
6		KSE	4100003	1x1/32 inch yellow rubber band	2	234	20%	467,6				
7		PDC	2100006	1x1/16 inch red rubber band	3	1235	0%	3705				
8		BJE	100006	1x1/16 inch black rubber band	2	1565	0%	3130				
9		BJE	1200003	2x1/32 inch braun rubber band	4	2564	0%	10256				
10		BJE	5300012	3x1/8 inch green rubber band	4	13	0%	52				
11		PDC	6300006	3x1/16 inch blue rubber band	3	24365	0%	73095				
12		PDC	7100050	1x1/2 inch violet rubber band	2	654	0%	1308				
13		SEM	8400050	4x1/2 inch grey rubber band	4	3456	0%	13824				
14		SEM	9400050	4x1/2 inch white rubber band	2	5646	0%	11292				
15		PDC	400006	4x1/16 inch black rubber band	2	7896	0%	23688				
16		SEM	1400003	4x1/32 inch braun rubber band	4	546	10%	1091,8				
17		SEM	5400012	4x1/8 inch green rubber band	4	64	15%	255,4				
18		SEM	6400006	4x1/16 inch blue rubber band	3	3354	0%	13416				
19		PDC	7400050	5x1/2 inch violet rubber band	2	546	0%	1638				
20		PDC	8400050	5x1/2 inch grey rubber band	4	654	0%	1308				
21		KSE	4100003	1x1/32 inch yellow rubber band	2	234	20%	467,6				
22		PDC	2100006	1x1/16 inch red rubber band	3	1235	0%	3705				
23		BJE	100006	1x1/16 inch black rubber band	2	1565	0%	3130				
24		BJE	1200003	2x1/32 inch braun rubber band	4	2564	0%	10256				
25		BJE	5300012	3x1/8 inch green rubber band	4	13	0%	52				
26		PDC	6300006	3x1/16 inch blue rubber band	3	24365	0%	73095				
27		PDC	7100050	1x1/2 inch violet rubber band	2	654	0%	1308				
28		SEM	8400050	4x1/2 inch grey rubber band	4	3456	0%	13824				
29		SEM	9400050	4x1/2 inch white rubber band	2	5646	0%	11292				
30		PDC	400006	4x1/16 inch black rubber band	2	7896	0%	23688				
31		SEM	1400003	4x1/32 inch braun rubber band	4	546	10%	1091,8				
32		SEM	5400012	4x1/8 inch green rubber band	4	64	15%	255,4				
33		SEM	6400006	4x1/16 inch blue rubber band	3	3354	0%	13416				
34		PDC	7400050	5x1/2 inch violet rubber band	2	546	0%	1638				
35		PDC	8400050	5x1/2 inch grey rubber band	4	654	0%	1308				
36								317.053,60				
37												

As you can see, you can add graphics to your output, but you can also add formulas and charts via a predefined template.. (Formulas will be updated via <Ctrl> + F9.)

Alternatively you can also format spooled files into excel files via a browser session by clicking ‘Format as xls’ below:



(Refer to appendix A on page 42 for information of the included web server).

Now InterExcel400 is ready to format your own spooled files...

Watch the movie

You have now read the book (or a part of it) so how about watching a movie about it? If you like to get a bit of inspiration you can watch a small video via this link:

http://download.interform400.com/shares/Newsletter/InterExcel400/InterExcel400.swf

InterExcel400 introduction

InterExcel400 was made to make a fast and easy formatting of reports that some use a lot of time to manually format. For the end users the new additions are simply these 2 new functions:

1) A command, **INTERXEL/SPL2XEL** (spooled file to Excel) that will convert and format an *SCS spooled file into a spreadsheet in the IFS. This could e.g. be submitted to batch or e.g. called from an InterForm400 AFC user program.

The resulting Excel spreadsheet can either be directly opened on a connected PC for interactive jobs or be placed (e.g. in batch) directly in the IFS with the use of any PC.

2) A command **INTERXEL/WRKOUTQXEL** (work with output queue - InterExcel version) that looks and works almost as the OS400 WRKOUTQ, but with a few extra options to convert a spooled file.

As an extra help any user can (in the green screen interface) set the preferred output queue with calling these commands from the InterExcel400 Main Menu via option

Conversion of spooled files can also be done via the included web server. Refer to Appendix A on page 42 for details.

The spooled files can be converted in these ways:

a) The **full conversion** where you setup rules - setting up spooled files, lines and positions and how they should be presented in the final Excel file output. This is the real core of InterExcel400. This is done either via the SPL2XEL command or via option 11 in WRKOUTQXEL. The resulting excel file can be placed in the IFS using a path that could include information from the spooled file and/or spooled file attributes.

b) The **WRKOUTQXEL** command also offers the options to convert a simple *SCS spooled file into a **.xls** (for opening in Excel), **.txt** or **.rtf** document and open the file on the PC application, that is associated with the extension. These conversions are at the moment only offered on this command - interactively.

When formatting a spooled file you can e.g. run the SPL2XEL command that retrieves many spooled file attributes and decides for what conversion definition to use. This will determine the layout and name of the resulting excel spreadsheet.

For the administrators of InterExcel400 another command is InterXEL/InterXEL. This gets you to the main menu of InterExcel400. In the following chapter we will go through the InterXEL menu in details.

Setting up conversion of a spooled file

In order to illustrate the steps of setting up InterExcel to convert a specific spooled file into an Excel spreadsheet we are going to refer to the InterExcel400 demo spooled file.

To print out a copy of this spooled file you type **INTERXEL/INTERXEL** on a command line and select option *'20. Restore InterExcel400 demo spooled file'*. Here you type in the output queue on to which you want to restore the spooled file. It is a good idea to select an output queue, where it is not immediately printed out so you can view it during the setup..

Below we will refer to the conversion of the InterExcel400 demo spooled file looking like this:

```
                          Display Spooled File
File  . . . . . :   DEMO                              Page/Line   1/2
Control . . . . .                                     Columns     1 - 78
Find  . . . . . .
*...+....1....+....2....+....3....+....4....+....5....+....6....+....7....+...
Sales Report - Rubber Band Inc.
Department: Remote Monitoring
            User:   Smith                       Date: 16.10.2006
            Period: 4th Quarter                 Time: 14:20:55
================================================================================
Sales Rep.  Art   Description                   Quantify Unit Price Discount
================================================================================
 KSE      4100003 1x1/32 inch yellow rubber band     2         234,00     20%
 PDC      2100006 1x1/16 inch red rubber band        3       1.235,00      0%
 BJE       100006 1x1/16 inch black rubber band      2       1.565,00      0%
 BJE      1200003 2x1/32 inch braun rubber band      4       2.564,00      0%
 BJE      5300012 3x1/8  inch green rubber band      4          13,00      0%
 PDC      6300006 3x1/16 inch blue rubber band       3      24.365,00      0%
 PDC      7100050 1x1/2  inch violet rubber band     2         654,00      0%
 SEM      8400050 4x1/2  inch grey rubber band       4       3.456,00      0%
 SEM      9400050 4x1/2  inch white rubber band      2       5.646,00      0%
                                                                       More...
F3=Exit   F12=Cancel   F19=Left   F20=Right   F24=More keys
```

Into this spreadsheet:

	A	B	C	D	E	F	G	H
1				**Sales Report - Rubber Band Inc.**				
2		**Department: Remote Monitoring**						
3					**User:**	Smith	**Date:**	16.10.2006
4					**Period:**	4th Quarter	**Time:**	14:20:55
5		**Sales Rep.**	**Art**	**Description**	**Quantify**	**Unit Price**	**Discount**	**Total Price**
6		KSE	4100003	1x1/32 inch yellow rubber band	2	234	20%	467,6
7		PDC	2100006	1x1/16 inch red rubber band	3	1235	0%	3705
8		BJE	100006	1x1/16 inch black rubber band	2	1565	0%	3130
9		BJE	1200003	2x1/32 inch braun rubber band	4	2564	0%	10256
10		BJE	5300012	3x1/8 inch green rubber band	4	13	0%	52
11		PDC	6300006	3x1/16 inch blue rubber band	3	24365	0%	73095
12		PDC	7100050	1x1/2 inch violet rubber band	2	654	0%	1308
13		SEM	8400050	4x1/2 inch grey rubber band	4	3456	0%	13824
14		SEM	9400050	4x1/2 inch white rubber band	2	5646	0%	11292
15		PDC	400006	4x1/16 inch black rubber band	2	7896	0%	23688
16		SEM	1400003	4x1/32 inch braun rubber band	4	546	10%	1091,8
17		SEM	5400012	4x1/8 inch green rubber band	4	64	15%	255,4
18		SEM	6400006	4x1/16 inch blue rubber band	3	3354	0%	13416
19		PDC	7400050	5x1/2 inch violet rubber band	2	546	0%	1638
20		PDC	8400050	5x1/2 inch grey rubber band	4	654	0%	1308
21		KSE	4100003	1x1/32 inch yellow rubber band	2	234	20%	467,6
22		PDC	2100006	1x1/16 inch red rubber band	3	1235	0%	3705
23		BJE	100006	1x1/16 inch black rubber band	2	1565	0%	3130
24		BJE	1200003	2x1/32 inch braun rubber band	4	2564	0%	10256
25		BJE	5300012	3x1/8 inch green rubber band	4	13	0%	52
26		PDC	6300006	3x1/16 inch blue rubber band	3	24365	0%	73095
27		PDC	7100050	1x1/2 inch violet rubber band	2	654	0%	1308
28		SEM	8400050	4x1/2 inch grey rubber band	4	3456	0%	13824
29		SEM	9400050	4x1/2 inch white rubber band	2	5646	0%	11292
30		PDC	400006	4x1/16 inch black rubber band	2	7896	0%	23688
31		SEM	1400003	4x1/32 inch braun rubber band	4	546	10%	1091,8
32		SEM	5400012	4x1/8 inch green rubber band	4	64	15%	255,4
33		SEM	6400006	4x1/16 inch blue rubber band	3	3354	0%	13416
34		PDC	7400050	5x1/2 inch violet rubber band	2	546	0%	1638
35		PDC	8400050	5x1/2 inch grey rubber band	4	654	0%	1308
36								**317.053,60**
37								

The setup contains of these 3 options:

1. Work with fonts
2. Work with Cell styles
3. Work with Conversion definitions

These are described below using this spooled file as an example.

1. Work with fonts

Here you make sure, that you have the fonts you need for the spooled file. After a new install you will already find a few font to help you get started:

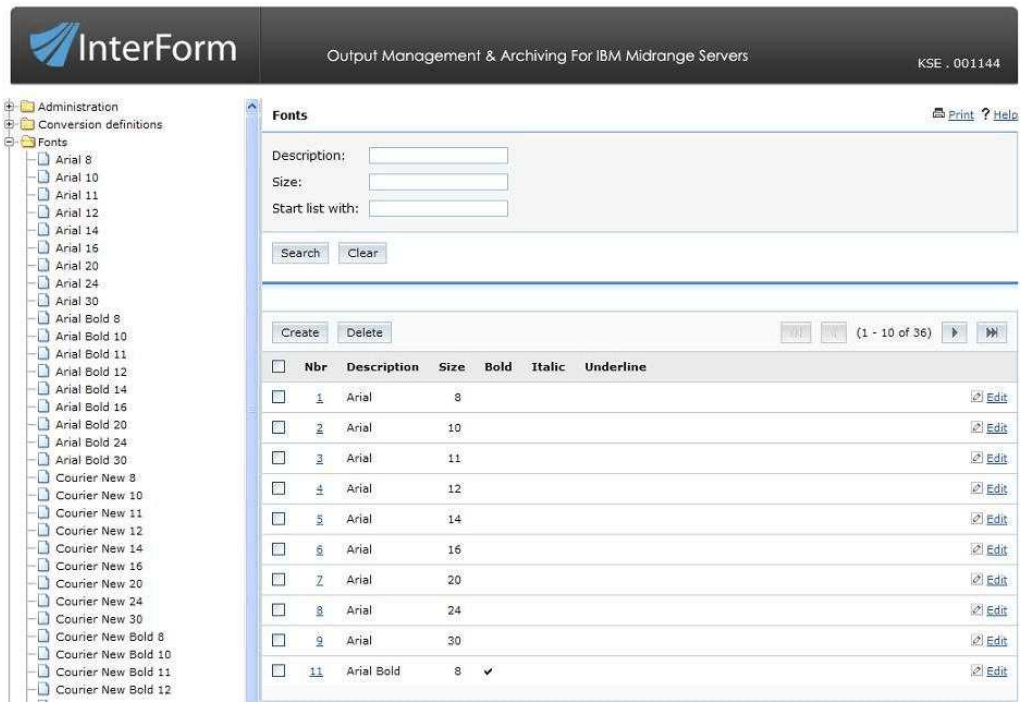
```
          Work with fonts                                          FNTUPD1

Position to . . . . . .        Font number

Type options, press Enter.
2=Change   3=Copy   4=Delete   5=Display

     Font  Font                                        Font
Opt  Nbr.  Name                                        Size  B  I  U
_       1  Arial                                          8  N  N  N
_       2  Arial                                         10  N  N  N
_       3  Arial                                         11  N  N  N
_       4  Arial                                         12  N  N  N
_       5  Arial                                         14  N  N  N
_       6  Arial                                         16  N  N  N
_       7  Arial                                         20  N  N  N
_       8  Arial                                         24  N  N  N
_       9  Arial                                         30  N  N  N
_      11  Arial Bold                                     8  Y  N  N
_      12  Arial Bold                                    10  Y  N  N
_      13  Arial Bold                                    11  Y  N  N
                                                                More...
F1=Help   F3=Exit   F5=Refresh   F6=Create   F12=Cancel
```

This list is limited to 99 different fonts. You can delete and change the predefined fonts as you please - just remember that this might change the demo example in this manual.

To add a new font just press F6 and type the name as it is displayed in your PC applications. InterExcel400 does not need to know the font name, so you can even use special corporate font as long at it is placed on the PC that open the file..

The abbreviations B, I and U are short for Bold, Italic and Underline. The size of the font is measured as on your standard PC applications.

In the web interface you view/edit the font list by opening the font tree on the left and then you can click on the font to change either on the left or right:



When you are sure, that you have the fonts you need you can proceed to work with the cell styles. See below.

2. Work with Cell styles

Select this option to define various way to format the spreadsheet cells:

```
         Work with cell styles                                          STYUPD1

Position to . . . . . .        Style number

Type options, press Enter.
2=Change   3=Copy   4=Delete   5=Display

     Style                                                 Font
Opt   Nbr.  Description                                    Nbr.
_        1  Top Header with underline        size 16        16
_        2  Second Header                    size 14        14
_        3  Small headings Bold              size 10        12
_        4  Small heading                    size 10         2
_        5  Small heading with T/B Border    size 10        12
_        6  Detail left adj.                 size 10         2
_        7  Detail right adjust              size 10         2
_        8  Total Right adj. T/B Borders     size 10        12




                                                                          End
F1=Help   F3=Exit   F5=Refresh   F6=Create   F11=View 2   F12=Cancel
```

Up to 99 cell styles can be defined. A cell style looks like this:

```
         Change cell style                                              STYUPD2

Style number . . . . . :    1
Description  . . . . . .   Top Header with underline        size 16
Font number  . . . . . .   16  (F4)
Border Thickness Top . . .  0   (0=No border, 1=Thin, 2=Thick)
Border Thickness Left  . .  0
Border Thickness Right . .  0
Border Thickness Bottom  .  2
Horizontal align. (L C R .  L
Vertical align. (T B C J).  C









F1=Help       F3=Exit       F4=Prompt       F12=Cancel
```

It has a number that you can refer to later and a description to help you to remember what it is for. The font number points out the font to use for this style.

The **border thickness** can be 0, 1 or 2 which denotes the width of a border:
0=No border
1=Thin border
2=Thich border

If you use a higher number the border will be dotted in a special manner.

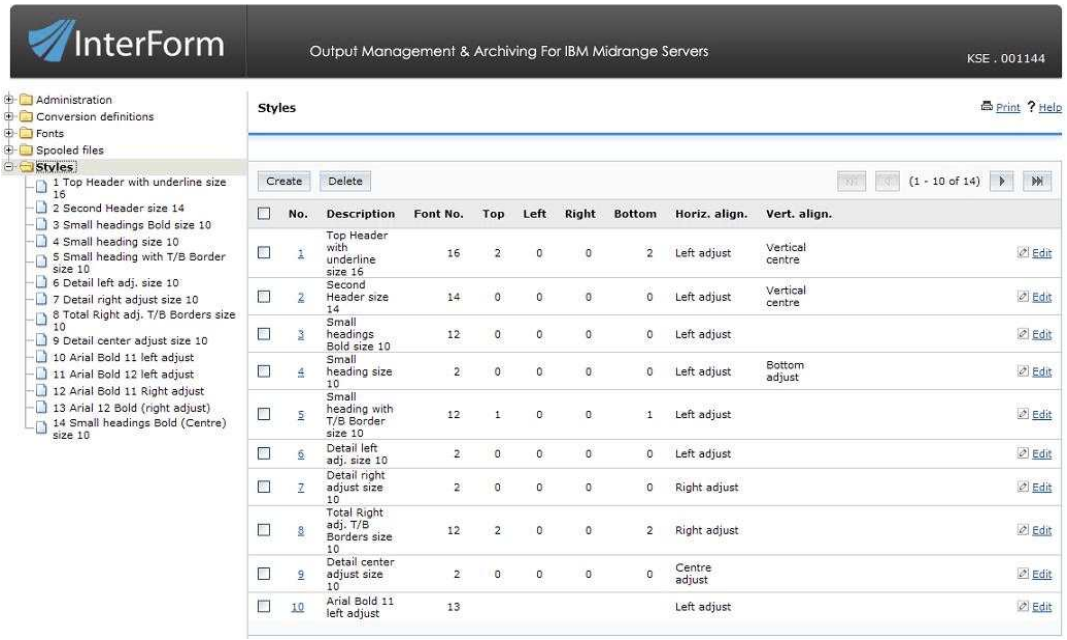
The horizontal alignment can be:
L=Left aligned **C**=Centered **R**=Right aligned

The vertical alignment can be:

T=Top aligned
C=Centered
B=Bottom aligned
J=Justified (Refer to the Excel Help for a description of that.)

When you have defined the necessary fonts and cell styles you can go on to define the spooled files to be converted in the next option on the InterXEL Main Menu.

Below you see the web interface. If you want to work with the styles you simply open the 'Styles' tree on the left. Click either left or right on an existing style to change one or click the 'Create' icon on the top to create a new style:


InterForm
Output Management & Archiving For IBM Midrange Servers
KSE . 001144
Administration
Conversion definitions
Fonts
Spooled files
Styles
1 Top Header with underline size 16
2 Second Header size 14
3 Small headings Bold size 10
4 Small heading size 10
5 Small heading with T/B Border size 10
6 Detail left adj. size 10
7 Detail right adjust size 10
8 Total Right adj. T/B Borders size 10
9 Detail center adjust size 10
10 Arial Bold 11 left adjust
11 Arial Bold 12 left adjust
12 Arial Bold 11 Right adjust
13 Arial 12 Bold (right adjust)
14 Small headings Bold (Centre) size 10
Styles
Print
Help
Create
Delete
(1 - 10 of 14)
No. Description Font No. Top Left Right Bottom Horiz. align. Vert. align.
1 Top Header with underline size 16 16 2 0 0 2 Left adjust Vertical centre Edit
2 Second Header size 14 14 0 0 0 0 Left adjust Vertical centre Edit
3 Small headings Bold size 10 12 0 0 0 0 Left adjust Edit
4 Small heading size 10 2 0 0 0 0 Left adjust Bottom adjust Edit
5 Small heading with T/B Border size 10 12 1 0 0 1 Left adjust Edit
6 Detail left adj. size 10 2 0 0 0 0 Left adjust Edit
7 Detail right adjust size 10 2 0 0 0 0 Right adjust Edit
8 Total Right adj. T/B Borders size 10 12 2 0 0 2 Right adjust Edit
9 Detail center adjust size 10 2 0 0 0 0 Centre adjust Edit
10 Arial Bold 11 left adjust 13 Left adjust Edit

3. Work with Conversion definitions

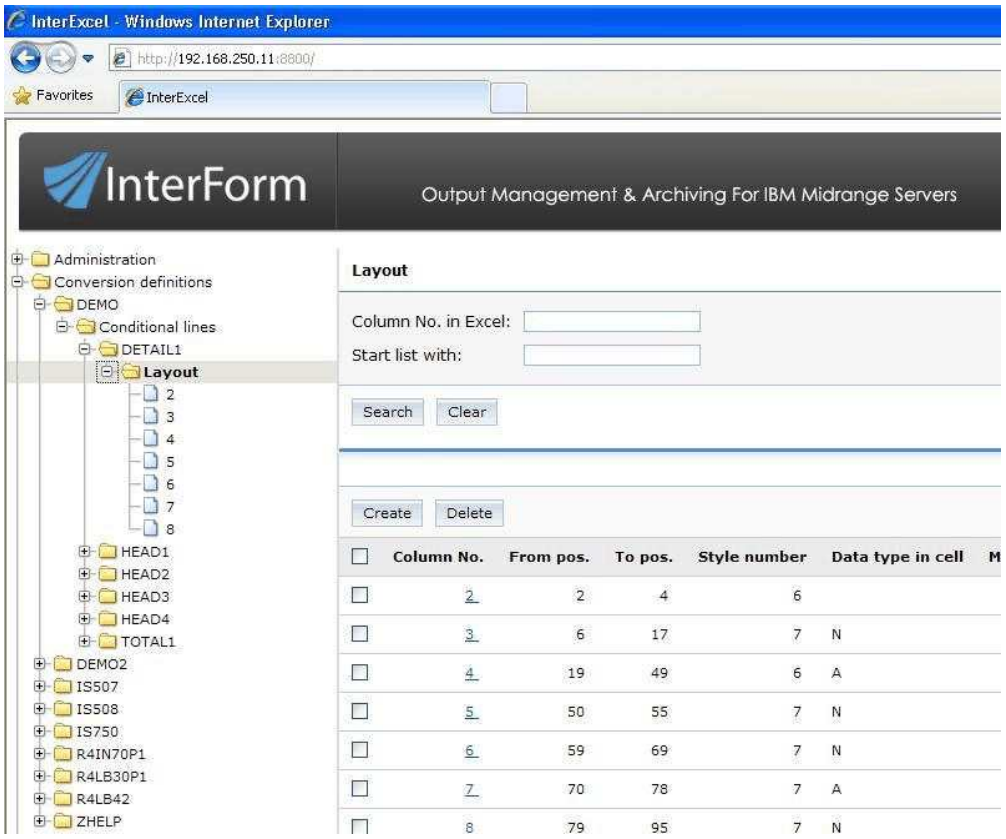
Conversion definitions is the setup, that determines how a specific spooled file should be formatted into an excel spreadsheet if you activate this conversion.

The conversion definition consists of 3 layers:

InterExcel400	Spooled file	Excel spreadsheet
1. Conversion definition	Spooled file type/ID	File name
2. Conditioned lines	Spooled file line	Rows
3. Layout	Spooled file positions	Cells

This means that a **conversion definition** identifies the spooled file and decides for an output file name. Each conversion definition consists of one or many **conditioned lines**, that identifies what kind of line each spooled file line is and thus decides for what row to use. Each conditioned line consists of one or many **layout** definitions, that takes spooled file text from relevant positions in the given line and tells in which cells the text is to be placed.

The tree structure is clearly visible on the web interface:



Under ‘Conversion definitions’ you see the conversion definitions as first level of branches (DEMO, DEMO2, IS507....). Inside the DEMO conversion definition you see the conditioned lines (DETAIL1, HEAD1, HEAD2...). Within each conditioned line you see the layout of the line. Above the layout of the line DETAIL1 is shown - showing you the layout of cells starting with 2 and ending with 8. To open an element you can either click the element in the tree structure or the left or click the element on the list on the right of the screen.

When you select option ‘3. Work with Conversion definitions’ after the INTERXEL/INTERXEL command for the first time you will see this:

```
         Work with Conversion definitions                              HEDUPD1

Position to . . . . . .              Conversion definition

Type options, press Enter.
  2=Change   3=Copy   4=Delete   5=Display   7=Rename   8=Conditions

     Conv.                                                              Splf
Opt  Definition  Description                      Form type             Name
 _   DEMO        InterExcel400 demo spool file   *STD                  DEMO
 _   DEMO2       InterExcel400 demo spool file   DEMO2                 DEMO
 _   IS507       FMIS IS507
 _   IS508       FMIS IS508
 _   IS750       FMIS IS750
 _   R4IN70P1    Demo for XPPS Infor splf                              R4IN70P1
 _   R4LB30P1    Demo for XPPS Infor splf                              R4LB30P1
 _   R4LB42      Demo for XPPS Infor splf                              R4LB42P2
 _   ZHELP       Help to define conversion def.                        QSYSPRT



                                                                          End
F1=Help   F3=Exit   F5=Refresh   F6=Create   F11=View 2   F12=Cancel
```

This lists the different kinds of spooled files, that are known by InterExcel400.
Here we use the conversion definition named **DEMO**. It looks like this: (Selecting option 2=Change)

```
         Change Conversion definition                                  HEDUPD2

Conversion definition  . :   DEMO______
Description  . . . . . .   InterExcel400_demo_spool_file_
Form type  . . . . . .     __________
Save attr. of Splf Y/N . .   _
Job Name . . . . . .       __________
Spooled file name  . . . .   DEMO______
Printer file . . . . . .   __________  Printer file Library . . . __________
Program  . . . . . .       __________  Program Library  . . . . . __________

Output Excel file name . .   /interxel/temp/*V1_*V2_*V3.xls____________________
_______________________________________________________________________________
_______________________________________________________________________________
_____________________________________________ Replace if file exist Y/N. Y
Spooled file codepage  . .   _____
                             Splf.Atr.   From  To
Variables for file name:     or blank    pos   pos   Line
*V1  . . . . . .           __________  __1   _12   __2
*V2  . . . . . .           __________  _22   _35   __5
*V3  . . . . . .           __________  _22   _33   __6
*V4  . . . . . .           __________  ___   ___   ___
F1=Help     F3=Exit                                      F12=Cancel
```

Conversion definiton name is used when InterExcel400 is searched for a fit with a spooled file. The conversion definition are searched in alphabetical order, but normally that is not important.

The spooled file attributes: Form type, save attr., Job name, spooled file name, printer file, printer file library, program and program library are all used to identify the spooled file. If any are filled out they must fit exactly with the spooled file if this conversion definition is to be selected for a ‘requesting’ spooled file.

The **Output Excel file name** defines where the resulting excel spreadsheet is to be created when using the SPL2XEL command. This can later be overridden when converting a specific spooled file in the SPL2XEL command. As a part of the name you can use up to

4 variables defined below. The values of the variables will be substituted for *V1-*V4 in the file name and path.

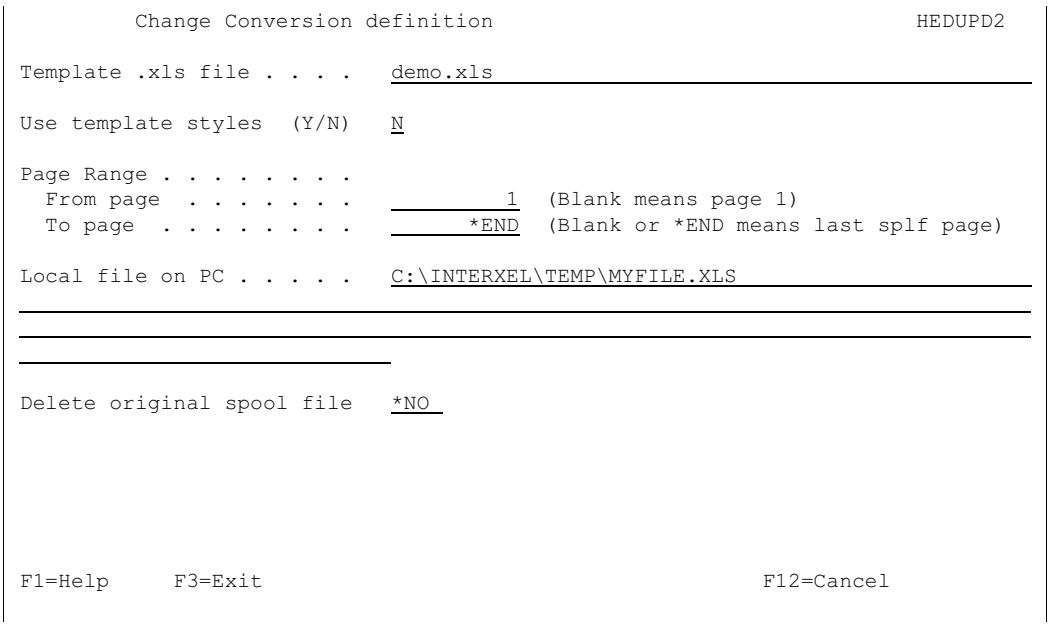
Note that directories in the path can be created if necessary depending on the configuration values of InterExcel400.

Replace if file exists Y/N determines if InterExcel400 can replace existing files or not. If you state **N** and a file with the same name already exist you will get an error message.

Spooled file codepage: Leave this field empty if the spooled file is in the same codepage as the current job. If not type the codepage to use for the conversion from EBCDIC into ASCII.

Variables for file name: The variables *V1-*V4 can be defined either as spooled file text as above (leaving the **splf. Atr.** Field empty) or any of the spooled file attributes FORMTYPE, JOBNAME, USER, JOBNUMBER, SPLFNUMBER, SPLFNAME, USRDTA, USRDFNDTA. You can even combine the spooled file attributes with the **from pos.** and **to pos.** fields to only include a part of the spooled file attribute.

When you press Enter you see the other fields on a conversion definition:


Change Conversion definition
HEDUPD2
Template .xls file . . . . demo.xls
Use template styles (Y/N) N
Page Range . . . . . .
From page . . . . . 1 (Blank means page 1)
To page . . . . . *END (Blank or *END means last splf page)
Local file on PC . . . . . C:\INTERXEL\TEMP\MYFILE.XLS
Delete original spool file *NO
F1=Help F3=Exit F12=Cancel

Template .xls file

If you want to insert the spooled file data into an existing excel file, then you state the existing file here. It is to be placed in the /InterXEL/Templates directory in the IFS. This template can have predefined graphics, formulas and charts to help illustrate the data found.

Use template styles

If you use a template you can chose if the styles (fonts, borders, formats etc.) should override the styles of your conversion definition. State 'Y' to do that. If you state 'N' the styles defined in InterExcel400 will override the styles found in the template. (However if you have stated 0 as the style in a layout the template style will still be used.).

Page Range

If you do not want to convert the whole spooled file into excel you can state a page range to use here instead.

Local file on PC

If you convert your spooled files into excel via option 11 you can here state an alternative name for the temporary files generated on your PC. Remember to state the whole path including the file name e.g. **C:\interxel\temp\myfile.xls**. You can also use variables (*V1-*V4) as a part of the path or file name. If you use *DEFAULT the files will be generated in C:\interxel\temp\ with the file name 'file' followed by a rolling number from 0 to 9 - with the extension .xls of course.

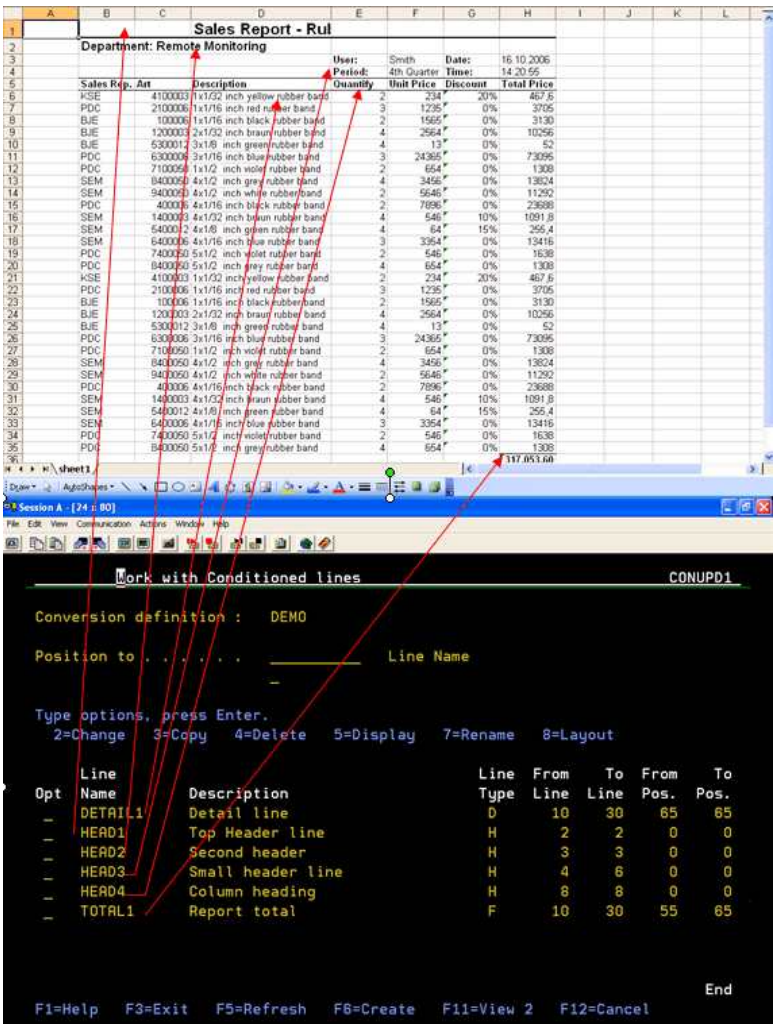
When you are done setting up the conversion definition you select option '**8=Conditions**' for the conversion definition to define the different types of lines in the spooled file:

Conditioned lines

If you select option 8=Conditions for the DEMO conversion definition you will see this:

```
         Work with Conditioned lines                                  CONUPD1

Conversion definition :   DEMO

Position to . . . . . .               Line Name


Type options, press Enter.
  2=Change   3=Copy   4=Delete   5=Display   7=Rename   8=Layout

     Line                                          Line  From    To   From    To
Opt  Name        Description                       Type  Line  Line  Pos.  Pos.
 _   DETAIL1     Detail line                        D      10    30    65    65
 _   HEAD1       Top Header line                    H       2     2     0     0
 _   HEAD2       Second header                      H       3     3     0     0
 _   HEAD3       Small header line                  H       4     6     0     0
 _   HEAD4       Column heading                     H       8     8     0     0
 _   TOTAL1      Report total                       F      10    30    55    65



                                                                            End
F1=Help   F3=Exit   F5=Refresh   F6=Create   F11=View 2   F12=Cancel
```

The definitions you see above has been made for the InterExcel400 demo spooled file. Here you can see how the line definitions are linked to the output:


Sales Report - Rul
Department: Remote Monitoring
Work with Conditioned lines
CONUPD1
Conversion definition : DEMO
Position to . . . . . .
Line Name
Type options, press Enter.
2=Change 3=Copy 4=Delete 5=Display 7=Rename 8=Layout
Opt Line Name Description Line Type From Line To Line From Pos. To Pos.
_ DETAIL1 Detail line D 10 30 65 65
_ HEAD1 Top Header line H 2 2 0 0
_ HEAD2 Second header H 3 3 0 0
_ HEAD3 Small header line H 4 6 0 0
_ HEAD4 Column heading H 8 8 0 0
_ TOTAL1 Report total F 10 30 55 65
End
F1=Help F3=Exit F5=Refresh F6=Create F11=View 2 F12=Cancel

A conditioned line (or you might call it a line description) looks like this:

```
          Change Conditioned line                                    CONUPD2

 Conversion definition  . :  DEMO
 Line Name  . . . . . . . :  DETAIL1
 Description  . . . . . . .  Detail line
 Type (D 1 2 3 H F X Y) . :  D

 From line  . . . . . . . .   10
 To line  . . . . . . . . .   30

 Row height . . . . . . . .     12
 Extension in same XLS row.  N

 Row placement (+/A ) . . .       Row number . . . . . . . .


 Condition:  (If left blank all lines in the interval will be used)

 From     To     Comp.
 Pos.     Pos.  (=N<>)  Compare text
  65       65      =    ,

F1=Help        F3=Exit                                  F12=Cancel
```

The line type defines the kind of line you define here:

D Detail line. This can be found on any page and it will always be included in the final output if selected.

1 A detail line only to be searched for on page 1 of the spooled file.
2 A detail line only to be searched for from page 2 until the end of the spooled file.
3 A detail line only found on the last page of the spooled file.

H A header line. The header lines found on page 1 of the spooled file are included in the excel output, while the header lines on the subsequent pages are not included in the output.

F Footer line. The footer lines from the last page of the spooled file are included in the output. The others are not. That makes sure that line totals and the like is not making a mess of the output.

X Extension line. This line is an extension of a previous line. If the conditioned line triggered by the last spooled file line had a 'Y' in the field '*Extension in same XLS row*' this line will be placed in the same row in the output excel spreadsheet. Each of the cells in this line will be placed in the first free cell to the right of the previous line..

Y Fixed Extension line. This works very simular to the X-line above, except that a Y-line will fill out fixed cells counted from the left. (This will use the column number stated in the layout inside this conditioned line).

From-
To line The interval of lines in the spooled file to be considered for this kind of line.

Row height
The height of the row in excel. This should be about the same as the largest font size used in this row.

Extension in same XLS row
If you insert a 'Y' here, then you tell InterExcel, that this conditioned line can be linked with following X og Y-lines (with the same line name) which may insert cells in the same row as this.

Row placement

The placement of the current line in the excel file. Keep this blank to simply use the next available row in the excel file.

+ This indicates that you want to skip rows (counted from the row that was last inserted). Type the number of rows to skip in the field **Row number**. Row number=1 will give you one empty row.

A **Absolute positioning**. This will place the spooled file line in a fixed row in the excel output. State the row number to tell where it is to be placed. If the row is lower than the rows previously processed, then InterExcel400 will move down and place the line here. If the row is already used then the line will be placed in the next free row.

Condition

The condition can be left blank to simply use this line definition for the whole line interval above. You can also state a condition to which the lines must fit in order to be considered here. Use the comparisons:

= Equal to
N Not equal to.
> Greater than
< Less than

So in the example above we search lines 10 to 30 for a ',' in position 65. This is how we identify a detail line. The problem is, that the **Grand total** of the spooled file could also be found on any of these lines so that is why we have included a condition here.
The TOTAL1 line is also conditioned to select only the line with 'Grand Total' in the spooled file.

Please notice, that spooled file lines, that are not selected by any **conditioned line** in InterExcel400 are not copied to the final output:

The top of page 2 in the *SCS demo spooled file looks like this:

```
                           Display Spooled File
File  . . . . . :   DEMO                          Page/Line   2/7
Control . . . . .   _____________                 Columns     1 - 78
Find  . . . . . .   _____________________
*...+....1....+....2....+....3....+....4....+....5....+....6....+....7....+...
================================================================================
Sales Rep.  Art   Description                   Quantify Unit Price Discount
================================================================================
                  Transport
                  ------------------------------------------------------------
 KSE      4100003 1x1/32 inch yellow rubber band    2        234,00    20%
 PDC      2100006 1x1/16 inch red rubber band       3      1.235,00     0%
 BJE       100006 1x1/16 inch black rubber band     2      1.565,00     0%
 BJE      1200003 2x1/32 inch braun rubber band     4      2.564,00     0%
 BJE      5300012 3x1/8  inch green rubber band     4         13,00     0%
 PDC      6300006 3x1/16 inch blue rubber band      3     24.365,00     0%
 PDC      7100050 1x1/2  inch violet rubber band    2        654,00     0%
 SEM      8400050 4x1/2  inch grey rubber band      4      3.456,00     0%
 SEM      9400050 4x1/2  inch white rubber band     2      5.646,00     0%
 PDC       400006 4x1/16 inch black rubber band     2      7.896,00     0%
 SEM      1400003 4x1/32 inch braun rubber band     4        546,00    10%
                                                                       More...
F3=Exit   F12=Cancel   F19=Left   F20=Right   F24=More keys
```

You may notice that the '======' lines as well as the '*Transport*' and '----------' lines are missing in the Excel spreadsheet simply because no conditioned line is 'grabbing' those lines.

When you have defined a conditioned line you use option '**8=Layout**' to tell InterExcel400 how the relevant line is to placed in the cells in the current row of the output. Read below to see how to do that.

Define the Layout of cells

After you have defined a conversion definition you define at least one conditioned line and within each of these you define one or more layouts. You reach this from a command line by executing **interxel/interxel** and selecting: *'3. Work with Conversion definitions'*, '*8=Conditions*' and '*8=Layout*':

```
         Work with Cell Layouts                                          LAYUPD1

Conversion definition :   DEMO
Line Name . . . . . :   DETAIL1
Line type (D 1 2 3 H F:   D

Position to . . . . . .   ____  Column No in Excel outp

Type options, press Enter.
2=Change   3=Copy   4=Delete   5=Display

     From    To     Output  Style  Data  Column
Opt  Pos.  Pos.  Column No   Nbr.  Type   Width
 _      1     5          2      6   A        20
 _      6    17          3      7   N        20
 _     19    49          4      6   A        20
 _     50    55          5      7   N        20
 _     59    69          6      7   N        20
 _     70    78          7      7   A        20
 _     79    95          8      7   N        20

                                                                          End
F1=Help   F3=Exit   F5=Refresh   F6=Create   F12=Cancel
```

Above we are looking at the layouts defined for the DETAIL1 conditioned line in the DEMO conversion definition created for the InterExcel400 demo spooled file.

A layout is defined like this:

```
         Change Cell Layout                                              LAYUPD2

Conversion definition  . :   DEMO
Line Name  . . . . . :   HEAD1
Type (D 1 2 3 H F X Y) . :   H

From position (in splf.) .   __1
To position (in splf.) . .   _40
Column No in Excel output:   __2     To column (Merge cells):  __7
Style number . . . . . .   _1       (F4)
Min. Column width  . . . .   ___20  (Measured approx. in mm.)

Data type in cell (N A)  .   A       A=Alpha numeric, N=Numeric)
Thousand separator in splf   _       (Only used for N=Numeric)
Decimal separator in splf:   _       (Only used for N=Numeric)
Negative value indicator:    _       (Only used for N=Numeric)




F1=Help        F3=Exit                                F12=Cancel
```

From-To position

This is the interval of positions in the current spooled file line to be placed in this cell in the excel spreadsheet. InterExcel400 will remove any leading and trailing blanks from the marked interval when copying it to excel.

Column No in Excel output
The column number where the spooled file data is placed. This is the cell number counted from the left so column A in excel is called 1, column B is 2 and so on....

To column (Merge cells)
If you want to merge several cells into one e.g. to make room for a large header line, then you can state the en column here. Above we merge cell 2 to 7 into one cell (also called cell A to G).

Style number
A style number previously created. The cell style defines the font and borders for the cell. Use F4 to list the existing styles. You can also leave it blank (same as 0) and use the style of a template excel file - if used.

Min. Column width
The minimum column width. The minimum width of this column when this cell is used. The column width will be adjusted to fit the largest value of the 'min. column width' in all cells in this column. Auto adjust of the width is not possible at the moment. The unit of measure is approximately around 1 mm. when printing on A3 (So 25 is around 1 Inch).

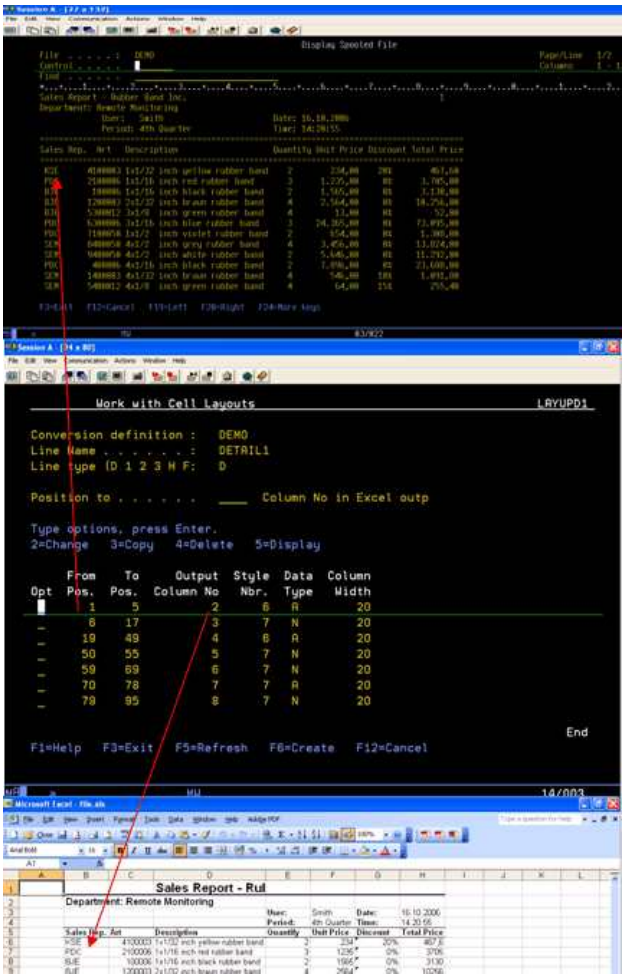
Data type in cell
The normal data type to use is '**A**' for alphanumeric. This can be used for normal text. If you however wants to be able to use a numeric value to do further calculations in excel (after InterExcel400 have made the excel file) you need to make sure, that Excel recognizes the cell contents as numeric. That can be done either manually as described on page 39 or by defining the field as '**N**' - numeric. If you state the field to be numeric the following fields should also be filled out:

Thousand separator
The sign that InterExcel400 should look for as thousand separator in the spooled file. You can leave it blank if no thousand separator is used.

Decimal separator
If a sign for decimal point is used in the spooled file it must be stated here otherwise leave it blank.

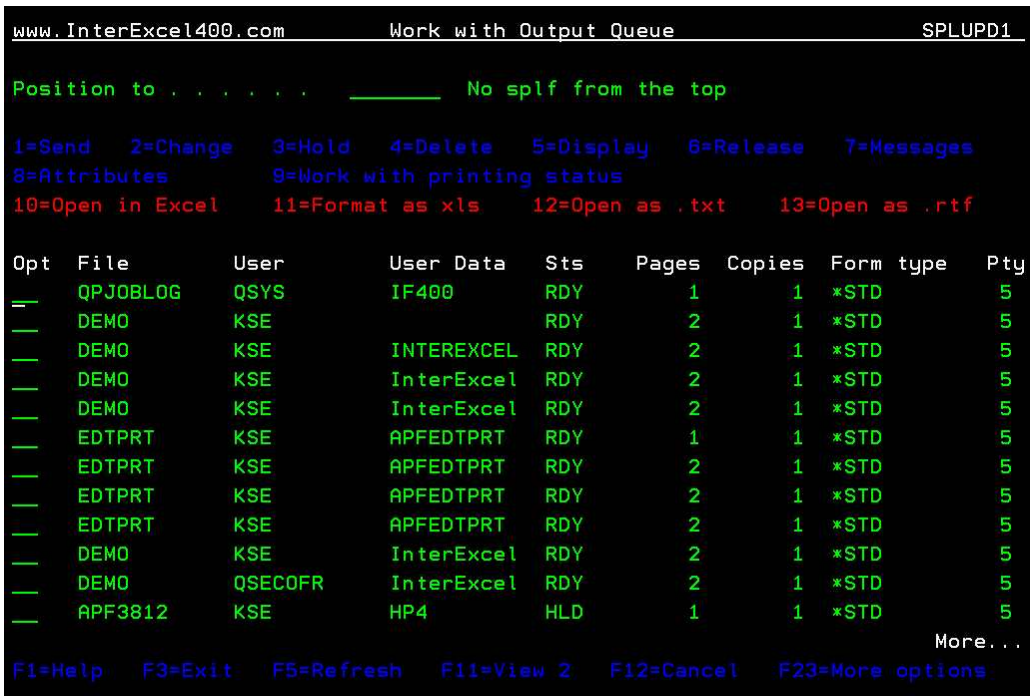
Negative value indicator
If the numeric value can be negative you here state how InterExcel400 can determine that. A '-' (without '') would be the normal value to use. The whole position interval is scanned for this.

Below you can see how the layout links the spooled file and excel output for one of the cells in a detail line:


Display Spooled File
Work with Cell Layouts
LAYUPD1
Conversion definition : DEMO
Line Name . . . . . : DETAIL1
Line Type (D 1 2 3 H F: D
Position to . . . . . Column No in Excel outp
Type options, press Enter.
2=Change 3=Copy 4=Delete 5=Display
From Pos. To Pos. Output Column No Style Nbr. Data Type Column Width
1 5 2 6 A 20
6 17 3 7 N 20
19 49 4 6 A 20
50 55 5 7 N 20
59 69 6 7 N 20
70 78 7 7 A 20
79 95 8 7 N 20
End
F1=Help F3=Exit F5=Refresh F6=Create F12=Cancel
Sales Report - Rul
Department: Remote Monitoring

The INTERXEL/WRKOUTQXEL Command

This command offers the possibility for end users to quickly convert a spooled file into an Excel or text file and open it immediately on the PC. It looks very much like the OS400 WRKOUTQ:


www.InterExcel400.com Work with Output Queue SPLUPD1
Position to . . . . . No splf from the top
1=Send 2=Change 3=Hold 4=Delete 5=Display 6=Release 7=Messages
8=Attributes 9=Work with printing status
10=Open in Excel 11=Format as xls 12=Open as .txt 13=Open as .rtf
Opt File User User Data Sts Pages Copies Form type Pty
QPJOBLOG QSYS IF400 RDY 1 1 *STD 5
DEMO KSE RDY 2 1 *STD 5
DEMO KSE INTEREXCEL RDY 2 1 *STD 5
DEMO KSE InterExcel RDY 2 1 *STD 5
DEMO KSE InterExcel RDY 2 1 *STD 5
EDTPRT KSE APFEDTPRT RDY 1 1 *STD 5
EDTPRT KSE APFEDTPRT RDY 2 1 *STD 5
EDTPRT KSE APFEDTPRT RDY 2 1 *STD 5
EDTPRT KSE APFEDTPRT RDY 2 1 *STD 5
DEMO KSE InterExcel RDY 2 1 *STD 5
DEMO QSECOFR InterExcel RDY 2 1 *STD 5
APF3812 KSE HP4 HLD 1 1 *STD 5
More...
F1=Help F3=Exit F5=Refresh F11=View 2 F12=Cancel F23=More options

The additions to the normal WRKOUTQ command are these options:

10=Open in Excel This opens the marked spooled file as an unformatted text file in Excel. Blank lin

11=Format as xls This will search all conversion definitions in InterExcel400 to find a conversion definition, that fits the spooled file attributes. If found it will convert the spooled file to a formattet Excel spreadsheet and open it.

12=Open as .txt Opens the spooled file unformatted as a .txt file in the application associated with .txt.

13=Open as .rtf Opens the spooled file unformatted as a .rtf file in the application associated with .rtf.

The limitations compared to the normal OS400 WRKOUTQ are these:

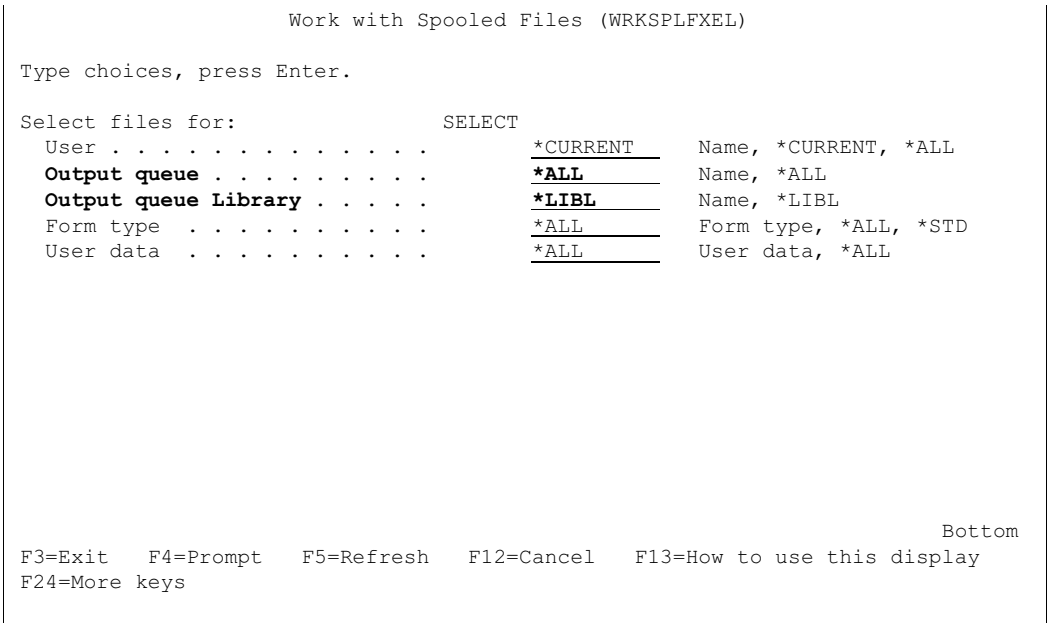
a) The output queue contents is not updated unless you exit and reenter the command
b) Option **7=Messages** is not yet supported
c) F17 (top) and F18 (bottom) are not supported yet, but you can position to a spooled file number in the list (counted from the top).
d) There is no command line.
e) F5=Refresh does not work yet.

Notice: When you open a spooled file with any of the options 10-13 the PC application will open a temporary file. The same temporary file will be reused for the same interactive job meaning, that you will may get an object lock error if you try to convert a new spooled file before closing the temporary file you opened earlier.

The INTERXEL/WRKSPLFXEL Command

Just like WRKOUTQXEL above gives you an extended version of the WRKOUTQ command, the WRKSPLFXEL command is an extended version of WRKSPLF.

One difference is the parameters on the command:


Work with Spooled Files (WRKSPLFXEL)
Type choices, press Enter.
Select files for: SELECT
User . . . . . *CURRENT Name, *CURRENT, *ALL
Output queue . . . . . *ALL Name, *ALL
Output queue Library . . . . . *LIBL Name, *LIBL
Form type . . . . . *ALL Form type, *ALL, *STD
User data . . . . . *ALL User data, *ALL
Bottom
F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More keys

On this command you can limit the spooled files shown to be the ones that are owned by a special user AND that is placed on a special output queue, where the WRKSPLF command only lets you combine the user with a printer device...

The extra options and the actual list of spooled files looks and runs exactly like the WRKOUTQXEL command above.

The Command SPL2XEL (Spooled file to Excel)

The command SPL2XEL can be used for converting *SCS spooled files into Excel or text files.

The command looks like this:

```
                    Spooled file to Excel conv. (SPL2XEL)

Type choices, press Enter.

Spooled file . . . . . . . . . . FILE      __________     Name
Job name . . . . . . . . . . . . JOB       *_________     Name, *
  User . . . . . . . . . . . . .                 __________ Name
  Job number . . . . . . . . . .                 ______     000000-999999
Spooled file number  . . . . . . SPLNBR    ______         000000-999999
Use Conv. def. (Format output)   FORMAT    *YES           *YES, *NO
Open in  . . . . . . . . . . . . OPEN      *NONE_         *NONE, *EXCEL, *WORD
Output type  . . . . . . . . . . OUTPUT    *XLS           *XLS, *TXT, *RTF
Codepage (if no conv. def.)  . . CODEPAGE  *JOB____       Character value
Replace (if no conv. def.) . . . REPLACE   *NO_           *YES, *NO

Excel file - incl. path (/)  . . OUTFILE   *DEFAULT_____________________________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
*DEFAULT, *TEMP, Character value
```

The fields are these:

Spooled file, Job name, User, Job number and Spooled file number identifies the spooled file to be converted.

FORMAT ***YES** indicates that the spooled file must be linked with an InterExcel400 Conversion definition and converted into a formatted excel spreadsheet according to this definition. ***NO** means that the output will be unformatted text in a file with the extension indicated in the **OUTPUT** field.

OPEN ***NONE** indicates that the resulting file will not be opened on a connected PC. You must select *NONE for any batch jobs. ***EXCEL** indicates that the resulting file is to be opened in Excel. ***WORD** means that the converted spooled file should be converted into a file with the extension denoted in **OUTPUT** and the PC application associated with this extension should open the file.

OUTPUT The type (and extension) of the resulting file. ***XLS**, ***TXT** and ***RTF** are supported values.

CODEPAGE The codepage in which the spooled file is written. ***JOB** will use the codepage (DFTCCSID) of the current job.

REPLACE State if InterExcel400 can replace the old file if a file with the same name already exists.

OUTFILE The name of the stream file to be created.
***DEFAULT** can be used if you select **FORMAT=*YES**. This will use the path specified in the conversion definition that fits the spooled file.
***TEMP** means that only a temporary output file will be created. This can be used for interactive jobs where you want to open the resulting file, but not necessarily place it in the IFS of the iSeries.

The speed of the SPL2XEL command varies a lot when you run it with **FORMAT=*YES**:
If you combine format=*YES with a path or *DEFAULT as OUTFILE the conversion into an excel spreadsheet is done 100% on the iSeries (with a java program). This takes considerably longer than if you combine format=*YES with outfile=*TEMP as this will run the java program on the connected PC, that is to open the excel file.

Please note, that using *TEMP as outfile reuses the same temporary file, so in order to avoid any object lock you need to close the previously opened file on the PC.

Running InterExcel400 with InterForm400

InterExcel400 can be used without InterForm400, but if needed it can easily be setup with InterForm400. You can simply use the demo program delivered with InterExcel400. It is: INTERXEL/AFCSPL2XLS, which is prepared like below and the owner is QSECOFR. The source of this program can be found in INTERXEL/APISRC.

These are the steps you can use:

1. Create this source member to be used via a option **8=Call Program** in auto forms control in InterForm400:

```
PGM           (&JOBNAME &USER &JOBNBR &FILNAM &FILNBR &OUTQ &OUTQLIB)

              DCL         &JOBNAME     *CHAR  10
              DCL         &USER        *CHAR  10
              DCL         &JOBNBR      *CHAR   6
              DCL         &FILNAM      *CHAR  10
              DCL         &FILNBR      *CHAR   6
              DCL         &OUTQ        *CHAR  10
              DCL         &OUTQLIB     *CHAR  10

              INTERXEL/SPL2XEL FILE(&FILNAM) +
                           JOB(&JOBNBR/&USER/&JOBNAME) +
                           SPLNBR(&FILNBR)

              ENDPGM
```

   You can copy the member called funkt_8 from the source file apf3812/apisrc and remove any unnecessary lines from the copy and just add the INTERXEL/SPL2XEL command. Please go through the parameters of the SPL2XEL command to make sure all the parameters are set correctly.

2. Compile the program you have just created. Make sure, that the compiled program is not placed in the INTERXEL or APF3812 library as that can cause a problem the next time you upgrade either InterForm400 or InterExcel400.

3. The final step sets your changes into production. Please note, that it takes a bit longer to create Excel files directly on the iSeries compared to normal InterForm400 functions, so it might be an idea to use a dedicated output queue for this.

   To setup InterForm400 for this you setup the output queue in auto forms control like this:

```
         Update AFC-functions attached to output queues              AFC305D

Queue:   INTERXEL     Library:   QUSRSYS

Seqnbr Funct   Form type  Save Jobname    Filename   Device file  Program
 0001    8                                DEMO
               Call, program: FUNKT_8XEL library: APF3812 User profile AFCOPER
 0002    6
               Hold Spooled File




Seqnbr Function
  1.0    8        Program call

                       Program name . . . . .  AFCSPL2XEL    Name
                         Library  . . . . . .    APF3812___  Name, *LIBL
                       User profile  . . . .   AFCOPER___    AFCOPER, *OWNER



F3=Exit           F13=Fold/Unfold       F11=Delete          F12=Cancel
```

In this example we have chosen to only convert spooled files with the name **DEMO** into Excel spreadsheets. This selection should fit the definitions in InterExcel400 so the spooled files are recognized by InterExcel400 and a fitting conversion definition can be found. This fits the InterExcel400 demo spooled file.

You can consider to use either AFCOPER or *OWNER as the user profile for the program call. The user profile stated here will own the created excel spreadsheet and should have authority to create the files in the IFS.

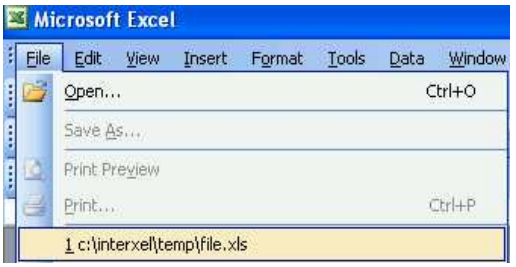
Tips and tricks for Excel and InterExcel400

Below are listed a few tips and tricks that might come in handy when using InterExcel400 and/or Excel:

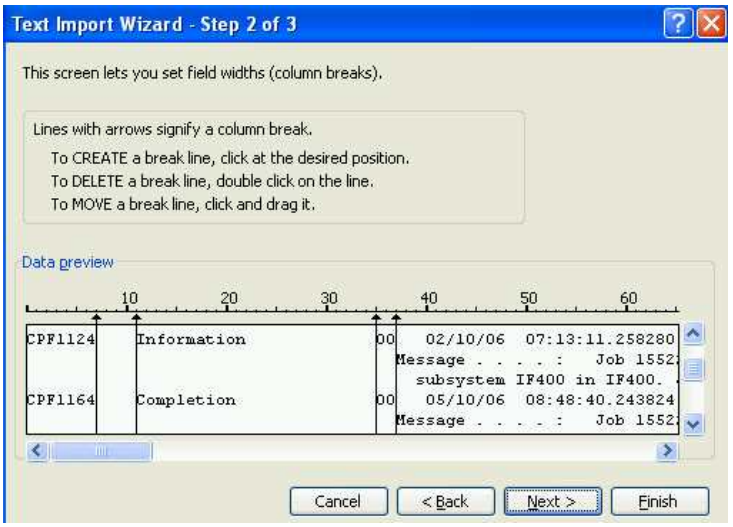
Activating the 'Text import wizard' in Excel.

Some of your users might want to convert a spooled files into excel ad hoc i.e. they want to create an excel spreadsheet for a spooled file for which no conversion definition have been defined. The simple way to do that is from the INTERXEL/WRKOUTQXEL command and select option **10=Open in Excel**.

That will not break up the file into nice columns, but you can be prompted for how it should be broken up by simply closing the file and then reopening it from Excel by selecting 'File' and selecting the temporary file like this:



When you then reopen the file the Text import wizard will start. After selecting next you can drag the lines below to state how the columns should be split up:


Text Import Wizard - Step 2 of 3
This screen lets you set field widths (column breaks).
Lines with arrows signify a column break.
To CREATE a break line, click at the desired position.
To DELETE a break line, double click on the line.
To MOVE a break line, click and drag it.
Data preview
10 20 30 40 50 60
CPF1124 Information 00 02/10/06 07:13:11.258280
Message . . . . : Job 1552
subsystem IF400 in IF400.
CPF1164 Completion 00 05/10/06 08:48:40.243824
Message . . . . : Job 1552
Cancel < Back Next > Finish

Converting text into numeric fields in excel

When formatting a spooled file into an excel spreadsheet you can define cells to be numeric (if the text inside is numeric), but for some situations you might want manually to tell excel to consider text in a cell to be numeric. This might be the case in these situations:

a) The cells are marked with the warning 'The number in this cell is formatted as text or preceded by an apostophe'.

b) You want to execute a numeric formula e.g. SUM on the relevant cells.

This can manually be fixed in this manner: (Quote from help in Excel)

1. Select a blank cell that you know has the General number format

   If you are not sure of the cell format, click **Cells** on the **Format** menu, and then click the **Number** tab. In the **Category** box, click **General**, and then click **OK**.

2. In the cell type **1** and then press ENTER.

3. Click the cell, and then click **Copy** on the **Standard** toolbar.

4. Select the range of cells that contain the “text” numbers.

5. On the **Edit** menu, click **Paste Special**, click **Multiply**, and then click **OK**.

Displaying large texts across cells

If you want to distribute one value or cell across many cells you can do that in the layout.

Here we are distributing the header across cells from 2 to 7:

```
          Change Cell Layout                                          LAYUPD2

 Conversion definition  . :   DEMO
 Line Name  . . . . . . . :   HEAD1
 Type (D 1 2 3 H F X Y) . :   H

 From position (in splf.) .     1
 To position (in splf.) . .    40
 Column No in Excel output:     2     To column (Merge cells):    7
 Style number . . . . . . .    1      (F4)
 Min. Column width  . . . .       20  (Measured approx. in mm.)

 Data type in cell (N A)  .   A       A=Alpha numeric, N=Numeric)
 Thousand separator in splf           (Only used for N=Numeric)
 Decimal separator in splf:           (Only used for N=Numeric)
 Negative value indicator:            (Only used for N=Numeric)




F1=Help        F3=Exit                                F12=Cancel
```

Using charts with the spooled file data

You can define charts in your template to present your spooled file data in a manner that is easier to read - as you know a picture tells more than a thousand words...

You just define the chart outside the area where the spooled file data is inserted. Refer to the template R4LB30P1.xls in /interxel/templates and refer to the conversion definition with the same name. This has been predefined for the Infor XPPS spooled file with the same name.

License code information

The license code of InterExcel400 can be found and change via INTERXEL/INTERXEL and option '10. Work with license information':

```
       Work with InterExcel400 license code


       Type in the values and press Enter.

       Serial No......:  65BD1BB

       Enddate........: 20061121 (YYYYMMDD)

       Max. Nbr. users: 050

       License code...: NBTJ9MFB

       Version........: 001015


       Valid License..: *YES




F3=Exit                                              F12=Cancel
```

When you receive a license code it must be delivered with an end date and a maximum number of users. If the end date is blank it is a permanent license. The same values must be entered with the license code for it to be accepted.

A user profile is considered to be a user of InterExcel400 (and is counted in the list of users) if the user profile is using either of the commands INTERXEL/SPL2XEL or INTERXEL/WRKOUTQXEL or if a spooled file owned by a user profile is handled by InterExcel400 (converted into a stream file).

The license code is also depending on the version of InterExcel400 i.e. the first 3 digits of the version (001 above).

Appendix A: The Web Interface

If you are not running InterExcel400 on an older iSeries and using InterExcel400 intensively with many users using InterExcel400 in parallel, then you should consider to activate the web interface of InterExcel400. The web interface runs java programs on the System i and that can run slow, if the System i is not up to date.

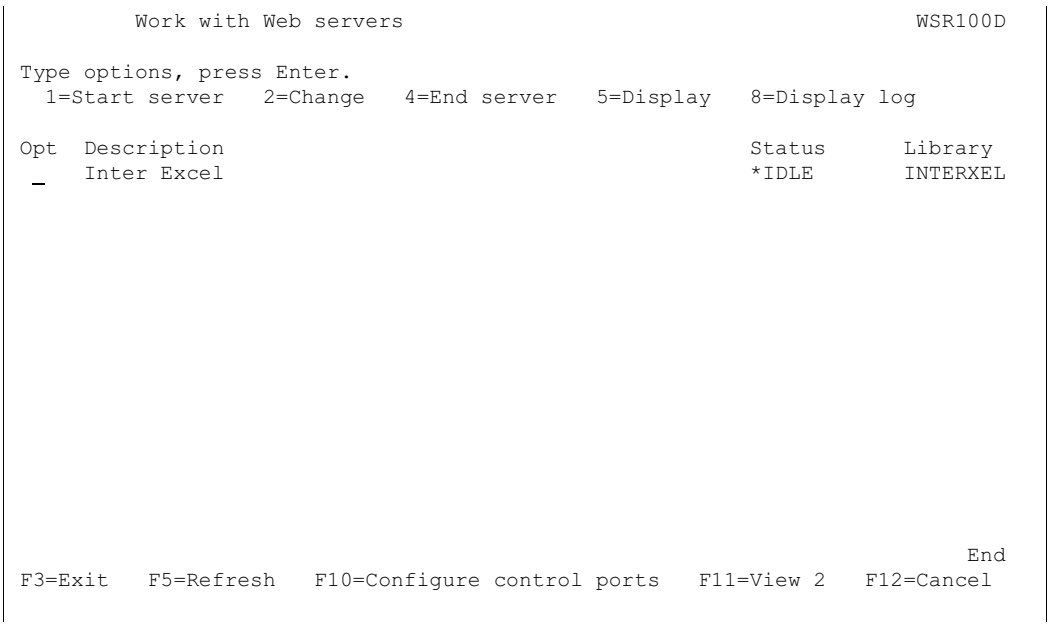
The web interface requires that the user profile WEBINTER exists and that the user has a password (which can be unknown by InterExcel400). When the first user enters the InterExcel400 menu this user is created, if it does not exist.

Prerequisites

Apart from installation of InterExcel400, it is required that the System i is running Java Runtime Environment version 1.5 or newer in order to use the web interface.

Configure the web server

First you need to configure the web server. In order to configure the server you go into InterExcel400 with the command, INTERXEL/INTERXEL and select option '80. Administration' followed by '16. Work with Tomcat web server', which will get you to this screen:


Work with Web servers
WSR100D
Type options, press Enter.
1=Start server 2=Change 4=End server 5=Display 8=Display log
Opt Description Status Library
Inter Excel *IDLE INTERXEL
End
F3=Exit F5=Refresh F10=Configure control ports F11=View 2 F12=Cancel

You can here select option '2=Change' to verify and change the ports used:

```
         Change Web server                                      WSR110D

Description  . . . . . .   Inter Excel

Sign on required . . . . .   *YES     *YES, *NO

TCP/IP port  . . . . . .    8800    1-65535


TCP/IP control port  . . .   18800   10000-65535









F3=Exit    F12=Cancel
```

These are the default values. If you set 'Sign on required' to ***NO**, then you will need to use tokens with the browser sessions as described below. The TCP/IP port is the port to use when you use the browser interface. You access InterExcel400 by e.g. typing this in the browser:

http://192.168.250.11:8800/

Where you of course exchange '192.168.250.11' with the IP-address or identification of your system i.

If you find, that the web server does not behave as it should you can use option 8=Display log to check the log of the web server for any errors.

Using tokens to eliminate a sign on request

If you do not want to sign on (specifying *NO for 'Sign on required' above), then you will need to use tokens instead.

First you need to get a token. You can do that via program, that is calling the command INTERXEL/GETWEBTKN (Get web token). This program should call the command with a variable defined as CHAR (alphanumeric) which must be at least 32 characters long. The variable will contain the token value when returning from the command. The command, GETWEBTKN can only be called from a program. The program must run under the same user as the user that should use the token.

You can e.g. call this CL program:

```
PGM
DCL  &TOKEN     *CHAR    32
INTERXEL/GETWEBTKN TOKEN(&TOKEN)
DMPCLPGM
ENDPGM
```

It will generate a spooled file containing value of the token in the variable &TOKEN.

Now you can use the token to access InterExcel400 via a browser by specifying this as the address:

http://system:port?user=usrprf&token=token

Where **usrprf** is the user profile that has run the program above and the one running the browser session and the last **token** is the value found when calling the program.

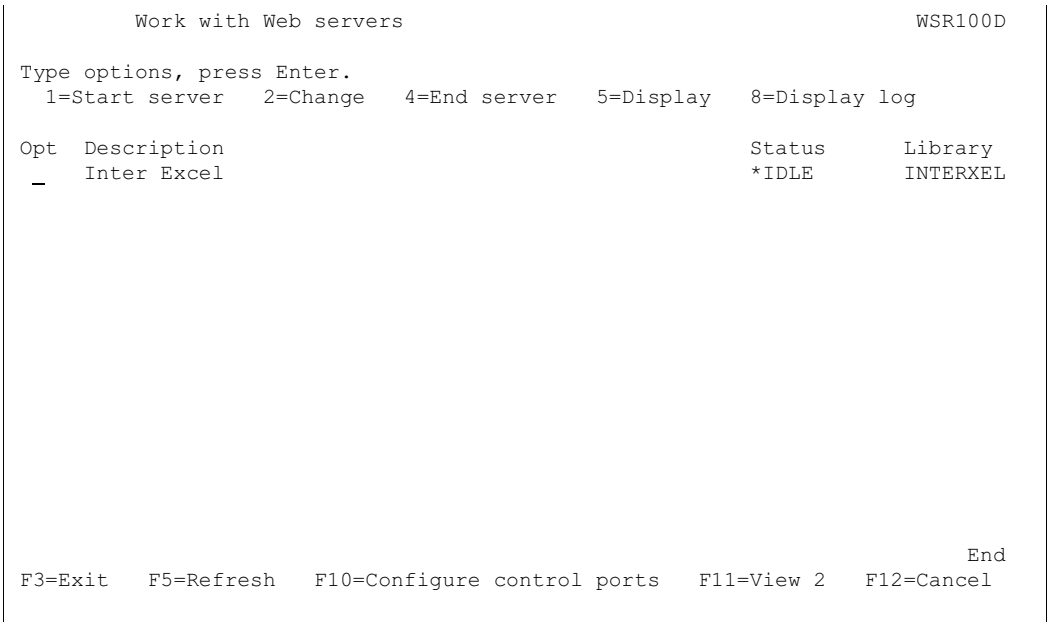
Here is an example:

http://192.168.250.11:8800/?user=KSE&token=5kodcEI5RZIz2J7X8Npzxy2psVLKSbgz

Here the user profile, KSE is running the browser session with the token, 5kodcEI5RZIz2J7X8Npzxy2psVLKSbgz.

Starting and stopping the web server

You can start and stop the web server by entering InterExcel400 with the command, INTERXEL/INTERXEL and selecting option '80. Administration' followed by '16. Work with Tomcat web server', which will get you to this screen:


Work with Web servers
WSR100D
Type options, press Enter.
1=Start server 2=Change 4=End server 5=Display 8=Display log
Opt Description Status Library
Inter Excel *IDLE INTERXEL
End
F3=Exit F5=Refresh F10=Configure control ports F11=View 2 F12=Cancel

If you select option '1=Start server' you will submit a job called STRWEBSVR to the job queue, QSYSNOMAX which will normally mean that the job runs in subsystem, QSYSWRK. After a few seconds the status should change to '*ACTIVE'. If not you can check the joblog of the submitted job e.g. with the command 'WRKJOB STRWEBSVR'.

If you select option '4=End server' a job called 'ENDWEBSVR' is submitted like above. The web server will then end after a few seconds.

You would probably want the web server to start as a part of the IPL. If so you can add the commands below at the end of the start up program, keeping in mind that ONLY a system responsible should change the start up program.

These commands could be added to start up the web server - please note that the start up should always be submitted as the command changes som environment variables of the current job:

SBMJOB CMD(CALL PGM(INTERXEL/STRTOMSVRC)) JOB(STRWEBSVR) JOBQ(QSYS/QSYSNOMAX)

MONMSG MSGID(CPF0000)

(Remember MONMSG to ignore any errors so the start up process will proceed independent of this submit).

If you want to submit an automatic end of the web server you can do that with this command:

```
SBMJOB CMD(CALL PGM(INTERXEL/ENDTOMSVRC)) JOB(STRWEBSVR) JOBQ(QSYS/QSYSNOMAX)

MONMSG MSGID(CPF0000)
```

Using the web interface

To use the web interface you simply start up your web browser and type this as the address:

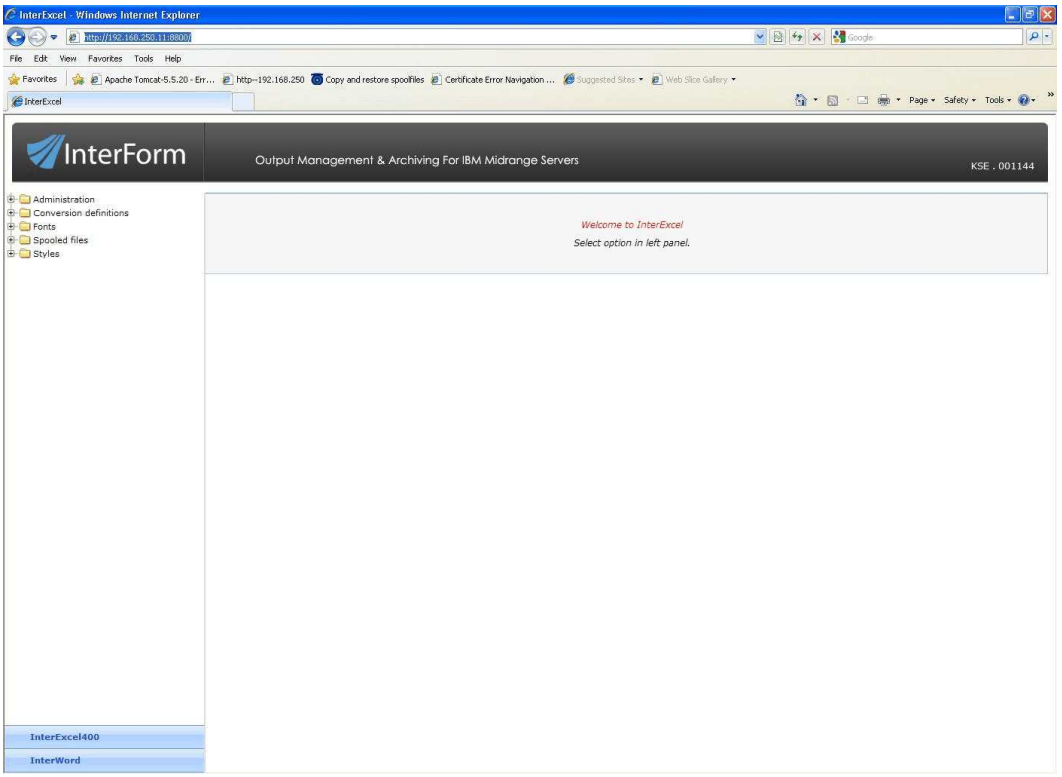
http://<ip>:<port>/

Where <ip> is exchanged with the ip-address of the System i and <port> is exchanged with the port number specified above e.g. like so:

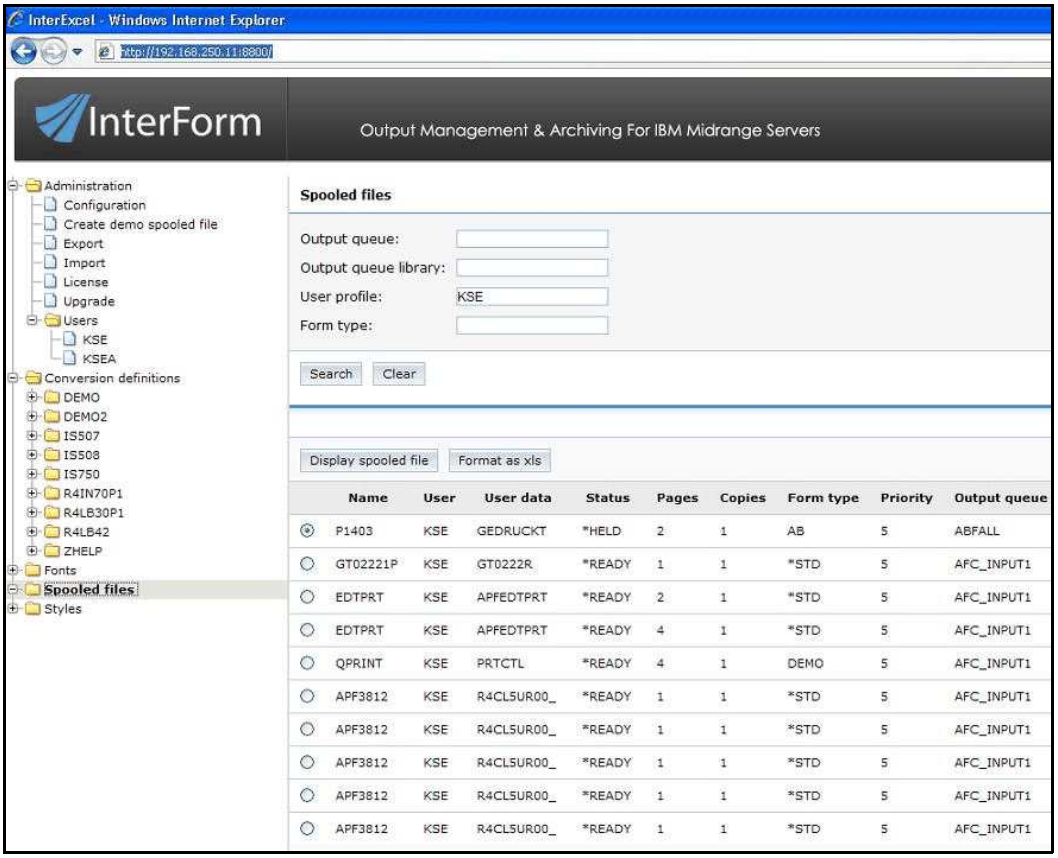
http://192.168.250.11:8800/

Now you will be prompted for a user profile and password to access the System i in a new window.

After that you will see this:



Notice the tree structure on the left. You can simply click on the '+' and '-' left to the branches to open and close any subtree:



The functionality and setting up InterExcel400 is described elsewhere in the manual. It is in essence working in the same manner for both green screen and browser sessions, except that the tree structure of the conversion definitions, conditioned lines and layouts can be clearly seen in the browser interface.

Above we have clicked ‘Spooled files’ on the left listing the spooled files of the current user. Now you can type in a search criteria on the upper right if you e.g. want only to see spooled files on a specific output queue.

Currently the option ‘Display spooled file’ has not been implemented in the Browser interface yet.

If you want to format a spooled file into an Excel file you mark the spooled file and click the ‘Format as xls’ icon on the top. If nothing happens or if a browser window quickly flash and end then you might need to adjust the security settings of your browser to allow your System i to output the file to your browser. Below it is shown how to do that in MS Internet Explorer:

Changing the security settings in MS Explorer

If you see a flashing new window when you try to format a spooled file as an Excel file via the browser, then it is very likely that your security settings are restricting this. Here is a one way to allow the System i to open the excel file on your PC.

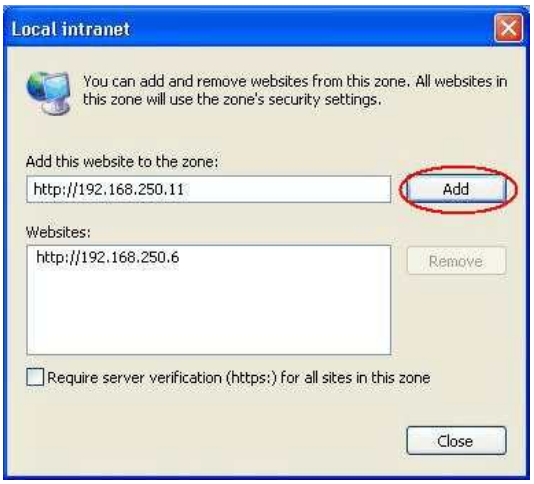
In MS Explorer you select ‘Tools’ and ‘Internet Options’:

Now you select the 'Security' tab in the top, 'Local intranet' and 'Sites' as marked below:

Now click the 'Advanced' button in the new window below:

Local intranet
Use the settings below to define which websites are included in the local intranet zone.
Automatically detect intranet network
Include all local (intranet) sites not listed in other zones
Include all sites that bypass the proxy server
Include all network paths (UNCs)
What are intranet settings?
Advanced
OK
Cancel

And finally you can add the current site as a safe intranet site:


Local intranet
You can add and remove websites from this zone. All websites in this zone will use the zone's security settings.
Add this website to the zone:
http://192.168.250.11
Add
Websites:
http://192.168.250.6
Remove
Require server verification (https:) for all sites in this zone
Close

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